WHOI-81-100

DESCRIPTION OF W.H.O.I. ROCK DREDGE SAMPLES

VOLUME 1

Edited By

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TECHNICAL REPORT

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TABLE OF CONTENTS

TABLE OF CONTENTS (Cont'd)

LIST OF TABLES

ABSTRACT

This report is Volume I in the series of reports entitled, "DESCRIPTIONS OF W.H.O.I. ROCK DREDGE SAMPLES". This series represents a major effort to catalog and prepare initial descriptions for all rock dredge samples in the W.H.O.I. Sea Floor Samples Collection, and to distribute this information throughout the scientific community. Volume I contains sample descriptions from approximately 382 dredging stations executed during the period 1960 through 1977. It also presents a digitized listing of all dredge station data for the entire W.H.O.I. Dredge Collection through 1980. The data are sorted by Marsden Square and can serve as a regional index for all rock descriptions included in Volumes I-III.

INTRODUCTION

A. Scope & Format of this Report.

"Descriptions of W.H.O.I. Rock Dredge Samples" is an ongoing series of reports that present station data and detailed descriptions of the dredge samples in the W.H.O.I. Sea Floor Samples Collection.

The first three volumes in this series represent the completion of a major effort to describe the entire back-log of ∿790 dredge stations in the W.H.O.I. dredge collection as of 1980. Volume I includes a variety of cruises with a wide geographic distribution executed during the period 1960 to 1977 (Table). Many of the cruises in Volume I preceded the establishment of a central archiving facility in Woods Hole. The material in Volume I has been prepared by the W.H.O.I. curatorial staff who have painstakingly verified station locations and slabbed and described representative suites from each of these dredge hauls.

Volume III includes material collected from September 1978 - December 1980 and represents a new procedure where most of the descriptive work is executed onboard ship by participating scientists. As such, it represents a model for future dredging cruises and descriptive reports and, therefore, was prepared first in (May 1981). Volume II will fill the gap and include the years 1966 through 1979. We expect Volume II to be printed in mid-1982; subsequent volumes will be prepared as incoming material demands.

This volume is organized alphabetically by research vessel and then chronologically within each of the vessels' many cruises. Each cruise "chapter" includes a generalized map of the ship's track, a digitized summary of the station location and samples recovered and finally the detailed descriptions. Notes on the descriptive format and abbreviations are provided in Table I. (Notes on Detailed Rock Descriptions.)

B. Archiving Procedures.

For the majority of dredge hauls in this volume, the assignment of identification numbers was generally done on a random basis. Thus rocks numbered in order do not necessarily possess similar lithologies. In describing a dredge haul, all specimens of reasonable size were sorted and many slabbed to obtain a fresh surface for description. If the dredge haul was very large and homogeneous, a representative suite of rocks were selected and described.

The standard format for archiving W.H.O.I. rock dredge samples is as follows: each rock (and subsequent slab) is labelled with the ship symbol, cruise number, and station number of the dredge haul, followed by a unique number for every rock within the dredge. For example, CHN 115 - 26 - 16 refers to rock 16 from station 26 of cruise Chain 115. All rock samples from this collection should be referenced in the literature by their Woods Hole identification number.

As a rule the station positions quoted here approximate the beginning of the station or the best estimate between several fixes of the dredge's location during the station. The quality of these fixes vary with the technological advancements in ship positioning capabilities. In recent years the end depth or fix has been taken when the dredge leaves the sea floor, not where it actually arrives on deck. All depths included in this volume are given in corrected meters. More detailed navigation information such as additional fixes or length of wire-out during stations is available from the curator's office. Likewise, detailed sampling records including names of investigators, proposed analyses, and copies of published papers are kept at the same office.

C. Digitization of Dredge Sample Data.

All logistical information about geological samples in the W.H.O.I. Sea Floor Samples Collection is stored on magnetic tape and accessible through a rapid retrie-

C. Digitization of Dredge Sample Data. (Cont'd)

val computer program. Samples can be sorted and retrieved through a number of parameters such as Marsden Square, water depth interval, sampling device, physiographic province, as well as simply by cruise number. A semi-coded listing of all the dredge stations in the W.H.O.I. collection as of 1980 sorted by Marsden Square is included in Table 3. In addition, Table 2 is an index of the cruises, including dates and geographic areas which can be found in Volumes I-III of Description of W.H.O.I. Rock Dredge Samples.

The following summary explains the coded terms used in the computer listings of samples in this report:

Ship Codes:

ATL - Atlantis
AII - Atlantis II
CHN - Chain
GOS - Gosnold
GIL - Gilliss
ISO - Islas Orcadas
KNR - Knorr
VUL - Melville - Vulcan Expedition

Sample Recovery Devices:

07 - Pipe Dredge
08 - Chain Bag Dredge
09 - Anchor Dredge
10 - Pipe Dredge, 3 in.
11 - Pebble Dredge
12 - Pierce Dredge

Fix Types:

Types of navigational equipment used to determine the sample location are as follows:

00 - Unspecified - (Comment in REMARKS or on COMMENT CARD)
01 - Dead Reckoning
02 - Visual Bearing
03 - Radar Fix
04 - Celestial
05 - Loran A
06 - Loran C

C. Digitization of Dredge Sample Data. (Cont'd)

Fix Types: (Cont'd)

07 - VLF
08 - Omega
09 - Satellite
10 - Radar Transponder Buoy
11 - Bottom Transponder
12 - Final Navigation File*

* Satellite fixes updated by continuous monitoring of ship's speed and heading via gravity acquisition system.

Dredge Weight (Recovery)

These are always quoted in kilograms unless the code specifically includes a G for grams (i.e. 010G = 10 grams).

Physiographic Province

A general physiographic location has been assigned to each of the samples listed, and can be decoded as follows:

01 - Insular Shelf
02 - Continental Shelf (along continental margin)
03 - Insular Slope
04 - Continental Slope
05 - Insular Rise
06 - Continental Rise
07 - Marginal Plateau or Borderland, deeper than 100 fms (e.g. Blake Plateau)
08 - discontinued
09 - Archipelagic Apron
10 - Abyssal Plain
11 - Abyssal Hills
12 - Seamount or Seamount Province
13 - Aseismic Oceanic Rise or Ridge (e.g., Rio Grande Rise, Walvis Ridge)
14 - Ridge Crest
15 - Ridge Flank
16 - Axial Valley
17 - Trench - Insular
18 - Trench - Continental Margin
19 - Fracture Zone
20 - Marginal Sea (e.g., Sea of Okhotsk, North Sea)
21 - Small Ocean Basin (e.g., Red Sea, Caribbean Sea)
22 - Inland Fresh Water Lake (e.g., African Lakes)
23 - Harbor, Shallow Bay (e.g., Buzzards Bay)
24 - Delta or Cone (e.g., Hudson Canyon)
25 - Submarine Canyon (e.g., Hudson Canyon)

C. Digitization of Dredge Sample Data. (Cont'd)

Physiographic Province (Cont'd)

26 - Mid-Ocean Canyon or Channel (e.g., Maury Channel, N. Atlantic Mid-Ocean Canyon)
99 - Unspecified: (Comment in REMARKS or on a COMMENT CARD)

Rock Types and Vita Code.

These columns have not been coded as they are undergoing some revision in order to be more descriptive of rock samples.

D. Sample Distribution Policy.

The W.H.O.I. Sea Floor Samples Laboratory is prepared to furnish samples and data to interested researchers and students within the scientific community who express a legitimate interest and need.

Requests for samples may be sent to the Geological Sample Curator's office, McLean Laboratory, W.H.O.I. These should include a summary of the intended research and the laboratory facilities available. Requests will be reviewed by the Principal Investigator responsible for collecting the samples, and may be approved if the proposed studies are not in conflict with concurrent laboratory studies. The Principal Investigator will retain authority to approve sample requests until expiration of the relevant research grant or until two years from the date of termination of the cruise, whichever is later. Following the period of proprietary access, sample requests will be approved by the Curator's office in consultation with the appropriate staff scientists.

Persons receiving samples will also receive a statement explaining the "Responsibilities of Persons Receiving Samples". Further documentation regarding this distribution policy may be found in W.H.O.I. Institution Memorandum #3-75 ("Distribution Policy for Geological Samples").

ACKNOWLEDGMENTS

The editors of this report would like to recognize all those persons contributing to the rock descriptions provided herein. We also wish to thank other members of the W.H.O.I. Curatorial Staff for their persistence in carrying out routine archival procedures which maintain the high quality of this collection. David A. Johnson provided much of the guidance and drive for this effort through the years. Donna Allison and Alice Tricca did a great job typing the complex forms. Support for the preparation of this report was provided by a grant to the Woods Hole Oceanographic Institution Sea Floor Samples Laboratory (National Science Foundation Grant No. OCE 78-25231). The petrologists on the scientific staff at Woods Hole (W. Bryan, G. Thompson, H. Dick, M. Mottl) have been of continuing assistance to us in providing logistical and descriptive information from their respective shipboard programs, and in implementing an effective sample distribution policy.

TABLE I

NOTES ON DETAILED ROCK DESCRIPTIONS

Lithology: Rock name; i.e. amphibolite, basalt, gabbro, greenstone

Wt.: Weight in grams or kilograms

G.S.: Grain size:
- G = glassy
- A = aphanitic; individual grains not visible to the naked eye
- F = fine; < 1mm
- M = medium; 1 to 5mm
- C = coarse; >5mm

Mineralogy: Phases present in groundmass if apparent in hand specimen.

Phenocrysts: Type and estimated amount in %; use abbreviations:

pg - plagioclase, px - pyroxene, amph - amphibole,
mt - magnetite, py - pyrite, ol - olivine,
il - ilmenite, ep-epidote, pr - prehnite, mi - mica, etc.

Ve: Vesicles: given an estimate of the percent in the rock

Am: Amygdules - filled vugs or vesicles:

T - trace, S - scattered
C - common, A - abundant

Mn: Manganese coating - give thickness (in mm or cm)

We: Weathering
- F - Fresh, no discoloration
- L - Light, discolored at edges
- M - Moderate discolored
- H - Heavy, clayey
- VH - Very Heavy, disaggregating

Alteration: Metamorphism - facies and degrees

i.e.
- Gr - Greenschist
- Amph - Amphibolite
- Ze - Zeolite

Remarks: Note if glass is present, and indicate visible structures: for example, "pillow rind fragments".

TABLE 2.

CRUISE INDEX OF DESCRIPTIONS OF WHOI ROCK DREDGE SAMPLES VOLUMES 1-3

Cruise #	General Location	Date
	VOLUME I	
Atlantis		
260	Hydrographer Canyon	Oct. '60
266	Blake Plateau	June '61
280	New England Seamounts	June '62
281	New England Seamounts	June '62
296	New England Seamounts	Aug. '63
Atlantis II		
1	Continental Slope off New York	Feb. '63
11	Puerto Rico Trench	July '64
13	Mid-Atlantic Ridge	Sept. '64
15	Bitter Lakes Region-Suez Canal/Continental Slope of Ethiopia	Feb.-Mar. '65
42	Mid-Atlantic Ridge	July '68
73	Mid-Atlantic Ridge (Famous Area)	Nov. '72
77	Mid-Atlantic Ridge (Famous Area)	Aug. '73
86	Continental Riseoff Atlantis Canyon	Mar. '75
92	Median Valley, Mid-Atlantic Ridge	Sept. '75
93	Indian Ocean Triple Junction/Banda Sea	Feb., Oct. '76
96	Kane Fracture Zone	Nov. '77
Chain		
7	New England Seamounts	May '59
9	Plantagenet Bank (S. of Bermuda)	Oct. '59
11	Caribbean Sea	Feb. '60
13	Rockallbank/Continental Slope of England	Sept. '60
19	Puerto Rico Trench	June '61
21	New England Seamounts/Mid-Atlantic Ridge	Aug. '61
34	Puerto Rico Trench	Dec. '62
36	Barracuda Fault	June '63
39	Abyssal Hills S.E. of Bermuda	Sept. '63
43	Seychelles (Indian Ocean)/Mid-Atlantic Ridge	May, Aug. '64
46	Mona Canyon/Blake Plateau	Feb. '65
52	Blake Plateau	Sept. '65
57	Puerto Rico Trench	April '66
58	Bermuda Rise	May '66
61	Med./Red Seas	
75	Caribbean-Aves Ridge, Mid-Atlantic Ridge	Oct. '67
82	Mid-Atlantic Ridge	
100	Samoan Passage, Ninety East Ridge, Slope of Australia	Apr., Sept. '71
115	Bouvet Triple Junction	Feb. '74
119	Eastern Mediterranean Sea	Apr. '75

TABLE 2. (Cont'd)

Cruise #		General Location	Date	
		VOLUME I (Cont'd)		
Gosnold				
	73	Blake Plateau	July	'65
	97	Off Jamaica	Mar.	'67
Knorr				
	42	Mid-Atlantic Ridge	Aug.	'74
	54	Cayman Trough	Dec.	'76
		VOLUME 2		
Atlantis II				
	20	Romanche Fracture, St. Pauls Rocks	Mar.	'66
	32	Mid-Atlantic Ridge 42°-43°N	July	'67
	42	Romanche Fracture Zone	June	'68
	59	Mid-Atlantic Ridge	Dec.	'70
	60	Romanche Fracture Zone	June	'71
	78	Mid-Atlantic Ridge, Kane Fracture Zone	Oct.	'73
	85	New England Seamounts	Sept.	'74
Leg 2	93	Walvis Ridge	Nov.	'75
Chain				
	35	St. Pauls Rocks	Mar.	'63
	44	Mid-Atlantic Ridge @ 22°N	Oct.	'64
	105	King's Trough	July	'72
Gilliss				
	103	Mid-Atlantic Ridge	Aug.	'78
	107	Tamano Fracture Zone	Oct.	'79
Islas Orcadas				
	11-76	Far South Atlantic	Nov.	'76
Oceanus				
	23	Caymen Trough	Apr.	'77
		VOLUME 3		
Atlantis II				
	107-6	Deep South Atlantic	Mar, Apr.	'80
	107-7	Deep South Atlantic	May	'80
Gillis	104	Kane Fracture Zone	Sept.	'78
KNORR	79	Kane Fracture Zone	June.	'80
VULCAN	5	Far South Atlantic	Late	'80

TABLE 3

COMPUTER LISTING OF W.H.O.I. DREDGES,

ARRANGED BY MARSDEN SQUARES.

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 17:25 NOV 02,'81 **********

WHOI

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 2											
AII	20	2	0013	0000	8	66 310	0 20.0'N	16 56.0'W	1	2.06	0013	5175.	5155.	0004	19	0000	0	
AII	20	2	0014	0000	8	66 310	0 24.0'N	16 55.0'W	1	2.06	0014	3950.	2365.	0002	19	0000	0	
AII	60	6	0014	0000	8	71 624	0 50.0'N	18 17.0'W	9	2.08	0014	2800.	2519.	5006	19	0000	0	
AII	60	6	0018	0000	8	71 626	0 90.0'N	17 17.0'W	9	2.07	0018	5675.	5186.	5006	19	0000	0	
AII	60	6	0019	0000	8	71 626	0 90.0'N	17 19.0'W	9	2.07	0019	5960.	5186.	0023	19	0000	0	
AII	60	6	0020	0000	8	71 626	1 30.0'N	17 18.0'W	9	2.07	0020	3996.	3558.	5006	19	0000	0	
AII	60	6	0021	0000	8	71 626	2 40.0'N	17 20.0'W	9	2.07	0021	2237.	1714.	0045	19	0000	0	
AII	60	6	0022	0000	8	71 627	1 80.0'N	17 2.0'W	9	2.07	0022	4243.	4034.	0002	19	0000	0	
AII	60	6	0023	0000	8	71 627	1 90.0'N	17 8.0'W	9	2.07	0023	4417.	3938.	2506	19	0000	0	
							MARSDEN SQUARE # 3											
AII	20	2	0024	0000	8	66 318	0 50.2'N	29 20.2'W	2	3.09	0024	3025.	1875.	0000	99	0000	0	ST PAULS RX
AII	20	2	0025	0000	8	66 318	0 51.8'N	29 20.3'W	2	3.09	0025	2345.	1590.	0000	99	0000	0	ST PAULS RX
AII	20	2	0026	0000	8	66 318	1 1.0'N	29 18.5'W	2	3.19	0026	2410.	1875.	0000	99	0000	0	ST PAULS RX
AII	20	2	0027	0000	8	66 318	1 .0'N	29 17.0'W	2	3.19	0027	1925.	1540.	0000	99	0000	0	ST PAULS RX
AII	20	2	0028	0000	7	66 319	0 56.4'N	29 19.8'W	2	3.09	0028	205.	225.	0000	99	0000	0	ST PAULS RX
AII	20	2	0029	0000	7	66 319	0 56.1'N	29 22.1'W	2	3.09	0029	0.	0.	0000	99	0000	0	ST PAULS RX
AII	20	2	0030	0000	7	66 319	0 56.1'N	29 21.9'W	2	3.09	0030	28.	47.	0000	99	0000	0	ST PAULS RX
AII	20	2	0031	0000	7	66 319	0 56.0'N	29 21.8'W	2	3.09	0031	160.	120.	0000	99	0000	0	ST PAULS RX
AII	20	2	0035	0000	8	66 321	1 .5'N	29 42.5'W	9	3.19	0035	3665.	2360.	0000	99	0000	0	ST PAULS RX
AII	20	2	0036	0000	8	66 321	0 58.1'N	29 25.7'W	2	3.09	0036	2550.	1500.	0000	99	0000	0	ST PAULS RX
AII	20	2	0037	0000	7	66 322	0 56.0'N	29 22.4'W	2	3.09	0037	115.	80.	0000	99	0000	0	ST PAULS RX
AII	20	2	0038	0000	7	66 322	0 55.3'N	29 22.5'W	2	3.09	0038	485.	135.	0000	99	0000	0	ST PAULS RX
AII	20	2	0039	0000	8	66 322	0 49.7'N	29 25.7'W	2	3.09	0039	2625.	1875.	0000	99	0000	0	ST PAULS RX
AII	20	2	0040	0000	8	66 322	0 52.8'N	29 26.3'W	2	3.09	0040	1590.	1410.	0000	99	0000	0	ST PAULS RX
AII	20	2	0041	0000	8	66 323	0 56.9'N	29 24.3'W	2	3.09	0041	1480.	1160.	0000	99	0000	0	ST PAULS RX
AII	20	2	0042	0000	8	66 323	0 49.4'N	29 23.0'W	2	3.90	0042	2810.	2110.	0000	99	0000	0	ST PAULS RX
AII	20	2	0043	0000	8	66 323	1 2.6'N	29 19.5'W	2	3.19	0043	3200.	2020.	0000	99	0000	0	ST PAULS RX
AII	20	2	0044	0000	8	66 324	0 51.2'N	29 14.0'W	2	3.09	0044	3095.	2360.	0000	99	0000	0	ST PAULS RX
AII	20	2	0045	0000	8	66 324	1 .2'N	29 26.6'W	2	3.19	0045	3380.	2560.	0000	99	0000	0	ST PAULS RX
AII	20	2	0046	0000	8	66 324	1 2.7'N	29 21.9'W	2	3.19	0046	3490.	2620.	0000	99	0000	0	ST PAULS RX
AII	20	2	0047	0000	8	66 325	0 47.6'N	29 28.3'W	2	3.09	0047	3570.	2910.	0000	99	0000	0	ST PAULS RX
AII	20	2	0048	0000	8	66 325	0 54.4'N	29 29.0'W	2	3.09	0048	3170.	2550.	0000	99	0000	0	ST PAULS RX
CHN	35	2	0007	0000	8	63 3 7	0 54.0'N	29 23.0'W	1	3.09	0007	1109.	1109.	0000	15	0000	0	
CHN	35	2	0008	0000	8	63 3 8	0 57.0'N	28 22.0'W	1	3.08	0008	3219.	3219.	0000	15	0000	0	
CHN	35	2	0015	0000	7	63 317	0 56.4'N	29 21.5'W	1	3.09	0015	300.	300.	0000	14	0000	0	
CHN	35	2	0016	0000	7	63 317	0 55.6'N	29 22.5'W	1	3.09	0016	113.	113.	0000	14	0000	0	
CHN	35	2	0018	0000	8	63 318	0 55.0'N	29 20.0'W	1	3.09	0018	1113.	1113.	0000	14	0000	0	

*************** STATION DATA RETRIEVAL *************** PAGE 2
*************** DATE: 17:25 NOV 02,'81 *************** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
								MARSDEN SQUARE # 4										
AII	20	2	0032	0000	8	66 320	0 49.5'N	30 7.0'W	9	4.00	0032	3570.	2455.	0000	99	0000	0	ST PAULS RX
AII	20	2	0033	0000	8	66 320	0 54.0'N	30 6.5'W	9	4.00	0033	2720.	2300.	0000	99	0000	0	ST PAULS RX
AII	20	2	0034	0000	8	66 321	0 55.0'N	30 17.0'W	9	4.00	0034	2815.	2470.	0000	99	0000	0	ST PAULS RX
CHN	35	2	0001	0000	8	63 3 5	0 33.0'N	32 47.0'W	1	4.02	0001	4291.	4291.	0000	15	0000	0	
CHN	35	2	0002	0000	8	63 3 5	0 34.0'N	32 55.0'W	1	4.02	0002	3939.	3939.	0000	15	0000	0	
CHN	35	2	0019	0000	7	63 319	0 44.0'N	34 47.0'W	1	4.04	0019	4072.	4072.	0000	6	0000	0	
								MARSDEN SQUARE # 5										
AII	20	3	0058	0000	8	66 419	9 36.0'N	40 35.5'W	9	5.90	0058	3340.	2475.	0000	19	0000	0	
CHN	35	3	0020	0000	12	63 4 0	7 33.0'N	44 59.0'W	1	5.74	0020	4663.	4663.	0000	6	0000	0	
								MARSDEN SQUARE # 6										
CHN	35	3	0021	0000	12	63 4 0	5 33.0'N	51 21.0'W	1	6.51	0021	91.	91.	0000	2	0000	0	
CHN	35	3	0022	0000	12	63 4 0	5 28.0'N	51 38.0'W	1	6.51	0022	72.	72.	0000	2	0000	0	
CHN	35	3	0023	0000	12	63 4 0	5 32.2'N	51 33.0'W	1	6.51	0023	62.	62.	0000	2	0000	0	
CHN	35	3	0024	0000	12	63 4 0	5 31.0'N	52 7.0'W	1	6.52	0024	57.	57.	0000	2	0000	0	
CHN	35	3	0025	0000	12	63 4 0	5 28.0'N	52 19.0'W	1	6.52	0025	41.	41.	0000	2	0000	0	
CHN	35	3	0026	0000	12	63 4 0	5 39.0'N	52 39.0'W	1	6.52	0026	38.	38.	0000	2	0000	0	
CHN	35	3	0027	0000	12	63 4 0	6 6.0'N	55 12.5'W	1	6.55	0027	26.	26.	0000	2	0000	0	
CHN	35	3	0028	0000	12	63 4 0	6 20.0'N	55 4.0'W	1	6.65	0028	20.	200.	0000	20	0000	0	
CHN	35	3	0030	0000	12	63 4 0	6 41.0'N	54 52.5'W	1	6.64	0030	38.	38.	0000	2	0000	0	
CHN	35	3	0031	0000	12	63 4 0	6 52.0'N	54 46.0'W	1	6.64	0031	53.	53.	0000	2	0000	0	
CHN	35	3	0032	0000	12	63 4 0	7 4.0'N	54 39.0'W	1	6.74	0032	70.	70.	0000	2	0000	0	
								MARSDEN SQUARE # 22										
AII	20	2	0016	0000	8	66 311	0 13.0'N	17 9.0'W	1	22.07	0015	5000.	4045.	0000	19	0000	0	
								MARSDEN SQUARE # 31										
AII	15	4	0556	0000	10	65 228	9 .0'N	51 5.0'E	9	31.91	0556	977.	0.	1136	4	0000	0	
AII	15	4	0557	0000	10	65 3 1	9 .0'N	51 25.0'E	9	31.91	0557	2580.	0.	4566	4	0000	0	
CHN	43	1	0008	0000	8	64 4 4	5 35.5'N	54 3.0'W	1	31.54	0004	4711.	3285.	5.4K	19	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 41											
AII	20	1	0001	0000	8	66 216	10 51.0'N	43 41.0'W	1	41.03	0001	5100.	3375.	100G	19	0000	0	
AII	20	1	0003	0000	8	66 216	11 5.0'N	43 42.0'W	1	41.13	0003	4750.	3420.	0000	19	0000	0	
AII	20	1	0004	0000	8	66 217	11 16.0'N	43 45.0'W	1	41.13	0004	4365.	3950.	0000	19	0000	0	
AII	20	1	0005	0000	8	66 218	11 15.0'N	43 47.0'W	1	41.13	0005	3605.	3035.	0000	19	0000	0	
AII	20	1	0006	0000	8	66 218	11 19.0'N	43 41.0'W	1	41.13	0006	4460.	3095.	0000	19	0000	0	
AII	20	1	0007	0000	8	66 218	10 35.0'N	43 45.0'W	1	41.03	0007	3000.	2270.	0000	19	0000	0	
AII	20	1	0008	0000	8	66 219	11 .0'N	44 5.0'W	1	41.14	0008	4790.	3910.	0000	19	0000	0	
AII	20	1	0009	0000	8	66 220	10 45.0'N	43 18.0'W	1	41.03	0009	4990.	3490.	0000	19	0000	0	
AII	20	3	0059	0000	8	66 422	10 41.0'N	42 32.0'W	9	41.02	0059	4910.	4140.	0000	19	0000	0	
AII	42	1	0018	0000	8	68 713	19 27.8'N	46 5.6'W	3	41.96	0001	2861.	2861.	010K	16	0000	0	
AII	42	1	0019	0000	8	68 713	19 32.3'N	46 6.1'W	1	41.96	0002	2278.	2278.	7.5K	16	0000	0	
CHN	75	2	0021	0000	8	671121	12 50.3'N	44 42.2'W	10	41.24	0003	2126.	1585.	8.8K	14	0000	0	
CHN	75	2	0022	0000	8	671121	12 52.7'N	44 50.9'W	10	41.24	0004	4630.	4438.	340G	16	0000	0	
CHN	75	2	0023	0000	8	671121	12 58.4'N	44 51.3'W	10	41.34	0005	4581.	4515.	227G	16	0000	0	
CHN	75	2	0025	0000	8	671122	12 58.8'N	44 58.5'W	10	41.34	0007	2333.	3162.	012K	14	0000	0	
CHN	75	2	0026	0000	8	671122	12 55.8'N	44 59.8'W	10	41.25	0008	2784.	2841.	009K	14	0000	0	
CHN	75	2	0027	0000	8	671122	12 58.0'N	44 41.1'W	10	41.24	0009	3256.	3049.	454G	14	0000	0	
							MARSDEN SQUARE # 42											
CHN	36	1	0017	0000	8	63 630	16 43.0'N	58 6.0'W	1	42.68	0005	5065.	4274.	051K	17	0000	0	
							MARSDEN SQUARE # 43											
AII	11	2	0028	0000	8	64 7 9	19 59.5'N	65 1.7'W	5	43.95	0006	7942.	7662.	5.9K	5	0000	0	
AII	11	2	0032	0000	8	64 711	19 17.7'N	65 10.4'W	5	43.95	0010	7023.	6729.	030K	5	0000	0	
AII	11	2	0033	0000	8	64 711	19 16.9'N	65 5.3'W	5	43.95	0011	6749.	6513.	007K	5	0000	0	
AII	11	2	0034	0000	8	64 712	19 4.6'N	66 9.0'W	5	43.96	0012	4983.	4105.	2.9K	5	0000	0	
CHN	11	3	0038	0000	7	60 222	17 45.0'N	64 55.0'W	4	43.74	0038	755.	942.	2.1K	3	0000	0	
CHN	19	1	0002	0000	8	61 628	19 58.4'N	66 25.2'W	5	43.96	0002	6987.	6594.	567G	17	0000	0	
CHN	19	1	0003	0000	8	61 628	19 58.4'N	66 25.7'W	5	43.96	0003	6968.	6544.	020K	17	0000	0	
CHN	19	1	0010	0000	8	61 630	20 .0'N	66 32.5'W	5	43.06	0010	6563.	6436.	010K	17	0000	0	
CHN	19	1	0011	0000	8	61 7 1	20 7.9'N	66 28.3'W	5	43.06	0011	3115.	3176.	454G	17	0000	0	
CHN	19	1	0013	0000	8	61 7 2	20 10.0'N	66 19.0'W	5	43.06	0013	6264.	6178.	7.7K	17	0000	0	
				COMMENTS			EDGERTON GRAPPLING DEVICE VOLUNTEERED THIS MATERIAL.											
CHN	46	1	0002	0000	8	65 222	18 49.9'N	67 19.3'W	5	43.87	0001	3572.	3288.	005K	25	0000	0	
CHN	46	1	0003	0000	8	65 222	18 47.5'N	67 22.8'W	5	43.87	0002	4830.	4801.	004K	25	0000	0	
CHN	46	1	0005	0000	8	65 223	18 49.2'N	67 28.6'W	5	43.87	0003	4318.	3723.	680G	25	0000	0	
CHN	57	1	0027	0000	8	66 4 4	19 58.8'N	64 15.2'W	5	43.94	0002	6710.	6572.	227G	17	0000	0	
CHN	57	1	0033	0000	8	66 4 7	19 47.8'N	67 8.7'W	5	43.97	0004	7912.	7667.	340G	17	0000	0	
CHN	57	1	0034	0000	7	66 4 7	19 58.0'N	68 4.0'W	5	43.98	0003	5690.	5612.	004K	17	0000	0	
CHN	75	1	0003	0000	8	671029	15 29.0'N	64 5.0'W	4	43.53	0001	1086.	1215.	454G	13	0000	0	

********** STATION DATA RETRIEVAL ********** PAGE 4
********** DATE: 17:25 NOV 02,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 43											
CHN	75	1	0005	0000	8	671030	14 42.5'N	63 36.5'W	4	43.43	0002	1239.	1454.	6.6K	13	0000	0	
							MARSDEN SQUARE # 44											
GOS	97	0	0006	0000	7	67 315	17 47.1'N	76 17.0'W	1	44.76	0006	738.	0.	450G	3	0000	0	
GOS	97	0	0016	0000	7	67 316	17 51.6'N	77 4.5'W	1	44.77	0016	10.	0.	450G	1	0000	0	
GOS	97	0	0018	0000	7	67 316	17 46.0'N	77 4.3'W	1	44.77	0018	20.	0.	500G	1	0000	0	
GOS	97	0	0020	0000	7	67 316	17 36.8'N	77 4.0'W	1	44.77	0020	25.	0.	567G	1	0000	0	
GOS	97	0	0021	0000	7	67 316	17 40.3'N	77 7.9'W	1	44.77	0021	0.	0.	254G	1	0000	0	
GOS	97	0	0024	0000	7	67 317	17 38.1'N	76 50.1'W	1	44.77	0024	0.	0.	925G	1	0000	0	
GOS	97	0	0026	0000	7	67 317	17 43.0'N	76 54.0'W	1	44.76	0026	0.	0.	450G	1	0000	0	
GOS	97	0	0030	0000	7	67 317	18 4.1'N	76 15.0'W	1	44.86	0030	698.	0.	908G	1	0000	0	
GOS	97	0	0033	0000	7	67 317	18 1.7'N	76 16.1'W	1	44.86	0033	322.	0.	450G	3	0000	0	
GOS	97	0	0038	0000	7	67 318	17 55.0'N	77 5.2'W	1	44.76	0038	460.	0.	790G	3	0000	0	
GOS	97	0	0042	0000	7	67 320	18 .5'N	77 57.1'W	1	44.87	0042	18.	0.	340G	1	0000	0	
GOS	97	0	0043	0000	7	67 321	18 .6'N	77 58.0'W	1	44.87	0043	42.	0.	001K	1	0000	0	
GOS	97	0	0044	0000	7	67 321	18 .5'N	77 59.1'W	1	44.87	0044	597.	0.	675G	3	0000	0	
GOS	97	0	0047	0000	7	67 321	17 55.5'N	77 52.4'W	1	44.77	0047	0.	0.	001K	3	0000	0	BIO DREDGE
GOS	97	0	0048	0000	7	67 321	17 52.5'N	77 50.0'W	1	44.77	0048	0.	0.	1.6K	3	0000	0	BIO DREDGE
GOS	97	0	0049	0000	7	67 321	17 52.1'N	77 48.1'W	1	44.77	0049	0.	0.	1.8K	3	0000	0	BIO DREDGE
GOS	97	0	0050	0000	7	67 321	17 49.8'N	77 45.0'W	1	44.77	0050	0.	0.	900G	3	0000	0	BIO DREDGE
GOS	97	0	0066	0000	7	67 322	17 50.0'N	77 39.8'W	1	44.77	0066	0.	0.	900G	3	0000	0	BIO DREDGE
KNR	54	2	0002	0000	8	76 115	18 2.6'N	81 43.1'W	9	44.81	0000	4795.	4824.	089K	17	0000	0	
				COMMENTS			ANGUS CAMERA FRAME RECOVERED THIS BASALT											
KNR	54	2	0011	0000	8	76 118	18 .1'N	81 36.8'W	9	44.81	0003	2855.	2597.	042K	17	0000	0	
KNR	54	2	0012	0000	8	76 119	18 3.6'N	81 37.3'W	9	44.81	0004	3484.	3728.	016K	17	0000	0	
KNR	54	2	0013	0000	8	76 119	18 5.9'N	81 42.2'W	9	44.81	0005	4514.	4619.		17	0000	0	
KNR	54	2	0014	0000	8	76 119	18 3.4'N	81 41.9'W	9	44.81	0006	4324.	4369.	1.8K	17	0000	0	
KNR	54	2	0023	0000	8	76 123	18 4.4'N	81 47.8'W	9	44.81	0008	4892.	5103.	086K	17	0000	0	
KNR	54	2	0024	0000	8	76 123	18 7.0'N	81 46.8'W	9	44.81	0009	5011.	5066.	061K	17	0000	0	
KNR	54	2	0026	0000	8	76 124	18 4.4'N	81 48.8'W	9	44.81	0010	4001.	4459.	355K	17	0000	0	
KNR	54	2	0027	0000	8	76 124	18 1.2'N	81 48.6'W	9	44.81	0011	4413.	4369.	084K	17	0000	0	
KNR	54	2	0029	0000	8	76 125	18 3.6'N	81 46.8'W	9	44.81	0012	4956.	4683.	019K	17	0000	0	
KNR	54	2	0030	0000	8	76 125	18 5.4'N	81 44.9'W	9	44.81	0013	5411.	4892.	026K	17	0000	0	
KNR	54	2	0033	0000	8	76 126	18 5.8'N	81 42.6'W	9	44.81	0014	4874.	4911.	047K	17	0000	0	
KNR	54	2	0037	0000	8	76 128	18 5.7'N	81 46.6'W	9	44.81	0017	5157.	4403.	304K	17	0000	0	
KNR	54	2	0039	0000	8	76 129	18 6.9'N	81 45.4'W	9	44.81	0018	5502.	5157.	034K	17	0000	0	
KNR	54	2	0040	0000	8	76 129	18 1.6'N	81 46.3'W	9	44.81	0019	4828.	4892.	034K	17	0000	0	
KNR	54	2	0042	0000	8	76 130	17 58.0'N	81 47.6'W	9	44.71	0020	4630.	4459.	195K	17	0000	0	
KNR	54	2	0044	0000	8	76 130	18 1.6'N	81 44.9'W	9	44.81	0022	4610.	4486.	136K	17	0000	0	
KNR	54	2	0046	0000	8	76 131	17 59.8'N	81 45.5'W	9	44.71	0023	4623.	4397.	206K	17	0000	0	
KNR	54	2	0047	0000	8	76 131	18 6.0'N	81 47.6'W	9	44.81	0024	5075.	4499.	062K	17	0000	0	
KNR	54	2	0048	0000	8	76 131	18 6.9'N	81 46.6'W	9	44.81	0025	5212.	4568.	022K	17	0000	0	
KNR	54	2	0051	0000	8	76 2 2	18 7.3'N	81 43.0'W	9	44.81	0027	5684.	5575.	072K	17	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 44											
KNR	54	2	0052	0000	8	76 2 2	18 7.3'N	81 46.0'W	9	44.81	0028	5393.	5474.	007K	17	0000	0	
KNR	54	2	0054	0000	8	76 2 3	17 59.1'N	81 34.4'W	9	44.71	0029	2047.	1956.	002K	17	0000	0	
KNR	54	2	0058	0000	8	76 2 3	18 7.6'N	81 43.8'W	9	44.81	0031	5329.	4965.	063K	17	0000	0	
KNR	54	2	0062	0000	8	76 2 4	18 25.0'N	81 40.8'W	1	44.81	0033	4665.	3913.	048K	17	0000	0	
KNR	54	2	0063	0000	8	76 2 5	18 35.7'N	81 41.3'W	9	44.81	0034	5123.	4628.	145K	17	0000	0	
KNR	54	3	0067	0000	8	76 210	18 38.7'N	81 12.6'W	9	44.81	0035	4118.	3438.	4.3K	17	0000	0	
KNR	54	3	0071	0000	8	76 211	18 45.9'N	81 35.0'W	9	44.81	0037	5292.	4628.	090K	17	0000	0	
KNR	54	3	0073	0000	8	76 212	18 56.6'N	81 31.3'W	9	44.81	0038	4701.	4568.	036K	17	0000	0	
KNR	54	3	0074	0000	8	76 212	18 49.0'N	81 32.8'W	9	44.81	0039	5657.	3529.	062K	17	0000	0	
KNR	54	3	0090	0000	8	76 216	18 37.0'N	81 44.0'W	1	44.81	0090	4755.	5283.	072K	17	0000	0	
				COMMENTS			ANGUS CAMERA FRAME RECOVERED THIS BASALT											
KNR	54	3	0091	0000	8	76 217	18 35.1'N	82 8.1'W	9	44.82	0042	4683.	4985.	075K	17	0000	0	
KNR	54	3	0094	0000	8	76 218	18 35.2'N	81 46.2'W	1	44.81	0043	5084.	5178.	146K	17	0000	0	
KNR	54	3	0098	0000	8	76 219	18 25.9'N	81 41.2'W	9	44.81	0045	5084.	4373.	083K	17	0000	0	
KNR	54	3	0102	0000	8	76 220	18 44.8'N	81 48.5'W	9	44.81	0046	6142.	6097.	2.4K	17	0000	0	
KNR	54	3	0103	0000	8	76 220	18 37.6'N	81 44.8'W	9	44.81	0103	5176.	5100.	012K	17	0000	0	
				COMMENTS			ANGUS CAMERA FRAME RECOVERED THIS BASALT											
							MARSDEN SQUARE # 45											
OCE	23	1	0001	0000	8	77 4 7	18 19.3'N	81 23.0'W	9	45.81	0001	4386.	4386.		16	0000	0	
OCE	23	1	0004	0000	8	77 4 9	17 56.5'N	81 45.0'W	1	45.71	0004	4846.	4943.		16	0000	0	
OCE	23	1	0005	0000	8	77 4 9	17 54.6'N	81 41.0'W	9	45.71	0005	5516.	4346.		16	0000	0	
OCE	23	1	0008	0000	8	77 410	17 51.0'N	81 52.0'W	1	45.71	0008	3268.	3268.		16	0000	0	
OCE	23	1	0009	0000	8	77 410	17 48.2'N	81 54.2'W	9	45.71	0009	5026.	3916.		16	0000	0	
OCE	23	1	0011	0000	8	77 411	18 10.7'N	81 46.0'W	9	45.81	0011	5640.	5420.		16	0000	0	
OCE	23	1	0012	0000	8	77 411	18 5.1'N	81 44.7'W	9	45.81	0012	5667.	5132.		16	0000	0	
OCE	23	1	0013	0000	8	77 412	18 10.4'N	81 37.2'W	9	45.81	0013	4495.	4495.		16	0000	0	
OCE	23	1	0014	0000	8	77 412	18 13.1'N	81 32.2'W	9	45.81	0014	3373.	3373.		16	0000	0	
OCE	23	1	0016	0000	8	77 412	17 53.0'N	81 50.0'W	1	45.71	0016	4123.	3916.		16	0000	0	
OCE	23	1	0017	0000	8	77 413	18 16.9'N	81 51.3'W	9	45.81	0017	3989.	3445.		16	0000	0	
							MARSDEN SQUARE # 68											
CHN	43	1	0006	0000	8	64 326	17 38.0'N	40 8.0'E	5	68.70	0003	1378.	1194.	002G	16	0000	0	
CHN	43	1	0070	0000	8	64 6 5	16 4.0'N	41 25.0'E	5	68.61	0025	1175.	1136.	707G	21	0000	0	RED SEA
CHN	43	1	0073	0000	8	64 6 9	17 50.0'N	40 12.0'E	5	68.70	0028	1203.	1203.	227G	21	0000	0	RED SEA

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 69											
CHN	100	3	0006	0000	8	71 3 5	19 38.4'N	38 36.2'S	9	69.98	0001	1831.	1739.	227G	16	0000	0	
							MARSDEN SQUARE # 75											
CHN	21	1	0008	0000	8	61 9 8	29 49.0'N	28 40.0'W	1	75.98	0008	462.	462.	454G	12	0000	0	
CHN	21	1	0010	0000	8	61 9 8	29 49.0'N	28 40.0'W	1	75.98	0010	349.	340.	113G	12	0000	0	
CHN	21	1	0011	0000	8	61 9 8	29 49.0'N	28 40.0'W	1	75.98	0011	321.	317.	6.8K	12	0000	0	
CHN	21	1	0013	0000	8	61 9 8	29 47.0'N	28 19.0'W	1	75.98	0013	589.	591.	3.6K	12	0000	0	
CHN	21	1	0014	0000	8	61 9 8	29 47.0'N	28 20.0'W	1	75.98	0014	393.	358.	003K	12	0000	0	
CHN	21	1	0015	0000	8	61 9 8	29 46.3'N	28 19.0'W	1	75.98	0015	871.	832.	3.3K	12	0000	0	
							MARSDEN SQUARE # 77											
AII	78	2	0001	0000	8	731015	23 13.0'N	44 43.0'W	9	77.34	0001	3090.	2325.	0027	15	0000	0	
AII	78	2	0002	0000	8	731015	23 14.0'N	44 42.0'W	9	77.34	0002	2965.	2360.	0006	15	0000	0	
AII	78	2	0003	0000	8	731015	23 13.0'N	44 55.0'W	9	77.34	0003	3990.	3380.	0200	15	0000	0	
AII	78	2	0007	0000	8	731019	22 59.0'N	45 42.0'W	9	77.25	0007	3445.	3000.	0016	15	0000	0	
AII	78	2	0008	0000	8	731019	22 58.0'N	45 51.0'W	9	77.25	0008	3570.	3200.	0110	15	0000	0	
AII	78	2	0009	0000	8	731020	22 58.0'N	45 56.0'W	9	77.25	0009	3860.	2910.	0023	15	0000	0	
AII	78	2	0010	0000	8	731020	23 .0'N	56 13.0'W	9	77.36	0010	3310.	2780.	0009	15	0000	0	
AII	78	2	0011	0000	8	731021	23 3.0'N	47 4.0'W	9	77.36	0011	4335.	3710.	0001	15	0000	0	
AII	78	2	0012	0000	8	731022	23 11.0'N	48 46.0'W	9	77.38	0012	4830.	3880.	0015	15	0000	0	
AII	78	2	0013	0000	8	731023	23 15.0'N	49 11.0'W	9	77.39	0013	4995.	4140.	0023	15	0000	0	
AII	78	2	0014	0000	8	731023	23 16.0'N	49 13.0'W	9	77.34	0014	4910.	3705.	0025	15	0000	0	
AII	78	20	0006	0000	8	731017	23 4.0'N	45 10.0'W	9	77.35	0006	3255.	2435.	0013	15	0000	0	
AII	92	2	0028	0000	8	7510 5	23 2.8'N	45 4.5'W	12	77.35	0004	2278.	1701.	065K	16	0000	0	
AII	92	2	0029	0000	8	7510 5	23 2.6'N	45 1.0'W	12	77.35	0005	2889.	2475.	100K	16	0000	0	
AII	92	2	0030	0000	8	7510 6	23 2.4'N	44 53.4'W	12	77.34	0006	3231.	3554.	037K	16	0000	0	
AII	92	2	0031	0000	8	7510 6	23 1.8'N	44 55.4'W	12	77.34	0007	3589.	3516.	160K	16	0000	0	
AII	96	3	0001	0000	8	7711 7	23 48.3'N	46 34.5'W	0	77.36	0001	3918.	2969.	106K	19	0000	0	
AII	96	3	0002	0000	8	7711 8	23 50.0'N	46 34.3'W	0	77.36	0002	4569.	3462.	003K	19	0000	0	
AII	96	3	0003	0000	8	7711 8	23 46.5'N	46 34.5'W	0	77.36	0003	3022.	2782.	011K	19	0000	0	
AII	96	3	0004	0000	8	7711 8	23 51.1'N	46 23.3'W	0	77.36	0004	5095.	3326.	063K	19	0000	0	
AII	96	3	0006	0000	8	7711 9	23 52.9'N	46 15.8'W	0	77.36	0006	5505.	4798.	104K	19	0000	0	
AII	96	3	0007	0000	8	7711 9	23 55.1'N	46 14.5'W	0	77.36	0007	4259.	3573.	046K	19	0000	0	
AII	96	3	0008	0000	8	7711 9	24 .7'N	46 11.2'W	0	77.46	0008	2860.	2212.	173K	19	0000	0	
AII	96	3	0009	0000	8	771116	23 36.5'N	44 28.7'W	0	77.34	0009	3982.	2737.	500G	19	0000	0	
AII	96	3	0010	0000	8	771117	23 38.3'N	44 29.2'W	0	77.34	0010	2578.	2287.	029K	19	0000	0	
AII	96	3	0012	0000	8	771117	23 31.1'N	43 54.4'W	0	77.33	0012	4039.	3326.	088K	19	0000	0	
AII	96	3	0013	0000	8	771118	23 36.0'N	44 57.9'W	0	77.34	0013	6180.	4049.	096K	19	0000	0	
AII	96	3	0014	0000	8	771118	23 36.2'N	45 1.6'W	0	77.35	0014	3611.	2700.	134K	19	0000	0	
AII	96	3	0015	0000	8	771118	23 32.7'N	45 5.4'W	0	77.35	0015	2044.	1800.	031K	19	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR ENI DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 77											
AII	96	3	0016	0000	8	771124	23 47.5'N	45 49.9'W	0	77.35	0016	4450.	3762.	079K	19	0000	0	
AII	96	3	0017	0000	8	771124	23 43.8'N	45 58.7'W	0	77.35	0017	3800.	3478.	009K	19	0000	0	
AII	96	3	0018	0000	8	771124	23 31.5'N	44 49.1'W	0	77.34	0018	3686.	3573.	005K	19	0000	0	
CHN	21	1	0003	0000	8	61 829	29 .0'N	47 26.8'W	1	77.97	0003	3795.	4706.	4546	15	0000	0	
CHN	21	1	0004	0000	8	61 9 2	29 4.3'N	44 15.6'W	1	77.94	0004	3806.	3692.	9070	14	0000	0	
CHN	21	1	0006	0000	8	61 9 3	29 4.0'N	43 2.0'W	1	77.93	0006	2264.	2264.	3.4K	16	0000	0	
CHN	21	1	0007	0000	7	61 9 3	29 4.0'N	43 3.0'W	1	77.93	0007	2264.	2264.	6.9K	16	0000	0	
CHN	21	1	0020	0000	8	6112 9	28 54.5'N	43 18.3'W	5	77.83	0020	3692.	3701.	095K	14	0000	0	
CHN	44	1	0002	0000	8	641014	22 38.0'N	44 58.0'W	1	77.24	0002	2440.	2100.	0008	15	0000	0	
CHN	44	1	0003	0000	8	641014	22 38.0'N	45 .7'W	1	77.25	0003	3400.	2400.	0011	15	0000	0	
CHN	44	1	0005	0000	8	641014	22 48.3'N	45 38.2'W	1	77.25	0005	3150.	3050.	0001	15	0000	0	
CHN	44	1	0006	0000	7	641017	22 46.8'N	46 10.8'W	1	77.26	0006	4400.	4100.	0001	15	0000	0	
CHN	44	1	0007	0000	7	641017	22 48.8'N	46 5.3'W	1	77.26	0007	4040.	3765.	0001	15	0000	0	
CHN	44	1	0008	0000	7	641018	22 48.8'N	46 5.6'W	1	77.25	0008	3400.	3200.	0010	15	0000	0	
CHN	44	1	0010	0000	7	641020	22 24.2'N	46 22.8'W	1	77.26	0010	3400.	3100.	0010	15	0000	0	
GIL	104	1	0001	0000	8	78 9 6	24 11.0'N	46 16.9'W	9	77.46	0001	4090.	3910.	0010	16	0000	0	
GIL	104	1	0002	0000	8	78 9 6	24 9.4'N	46 16.1'W	9	77.46	0002	3970.	3800.	0051	16	0000	0	
GIL	104	1	0007	0000	8	78 9 7	23 51.2'N	46 20.0'W	9	77.36	0007	5060.	4780.	0012	19	0000	0	
GIL	104	1	0013	0000	8	78 9 9	23 39.2'N	44 59.3'W	9	77.34	0013	4870.	4260.	0143	16	0000	0	
GIL	104	1	0017	0000	8	78 910	23 37.2'N	45 2.1'W	9	77.34	0017	4820.	4410.	0120	19	0000	0	
GIL	104	1	0019	0000	8	78 911	23 30.9'N	44 58.9'W	9	77.33	0019	4240.	3980.	0245	16	0000	0	
GIL	104	1	0020	0000	8	78 912	23 37.7'N	45 2.8'W	9	77.35	0020	4380.	3820.	0075	16	0000	0	
GIL	104	1	0025	0000	9	78 914	23 32.0'N	44 57.4'W	9	77.34	0025	4560.	4300.	0015	16	0000	0	
GIL	104	1	0027	0000	8	78 915	23 34.7'N	44 59.9'W	9	77.34	0027	3840.	2870.	0014	16	0000	0	
GIL	104	1	0029	0000	8	78 916	23 38.8'N	44 48.1'W	9	77.34	0029	3880.	3620.	0014	19	0000	0	
GIL	104	1	0035	0000	8	78 918	23 51.2'N	46 13.4'W	9	77.36	0035	4590.	4010.	0021	19	0000	0	
GIL	104	1	0037	0000	8	78 919	23 50.5'N	46 8.3'W	9	77.36	0037	4550.	4320.	04.2	19	0000	0	
GIL	104	1	0040	0000	8	78 920	23 48.3'N	46 16.9'W	9	77.36	0040	5220.	4820.	04.3	19	0000	0	
GIL	104	1	0047	0000	8	78 922	23 56.7'N	46 18.0'W	9	77.36	0047	4580.	4470.	0011	16	0000	0	
KNR	79	2	0010	0000	8	80 531	23 37.4'N	44 44.3'W	9	77.34	0010	4225.	4077.	0117	19	0000	0	
KNR	79	2	0015	0000	8	80 6 2	23 36.7'N	45 5.9'W	9	77.35	0015	3682.	2430.	04.2	19	0000	0	
KNR	79	2	0017	0000	8	80 6 3	23 34.3'N	44 48.5'W	9	77.34	0017	3890.	3640.	0011	16	0000	0	
KNR	79	2	0021	0000	8	80 6 5	23 33.4'N	44 55.5'W	9	77.34	0021	5068.	4616.	0120	16	0000	0	
KNR	79	2	0025	0000	8	80 6 7	23 36.4'N	44 46.7'W	9	77.34	0025	3671.	3910.	0018	16	0000	0	
KNR	79	2	0026	0000	8	80 6 8	23 36.7'N	44 47.3'W	9	77.34	0026	3660.	3670.	0010	16	0000	0	
KNR	79	2	0027	0000	8	80 6 8	23 36.5'N	44 46.4'W	9	77.34	0027	3930.	3743.	0035	16	0000	0	
KNR	79	2	0028	0000	8	80 6 8	23 37.0'N	44 49.0'W	9	77.34	0028	3840.	3580.	0073	16	0000	0	
KNR	79	2	0034	0000	8	80 610	23 31.0'N	44 54.4'W	3	77.34	0034	4770.	4770.	0040	16	0000	0	
				COMMENTS			SAMPLES RECOVERED BY ANGUS CAMERA FRAME : FIX NOT EXACT											
							MARSDEN SQUARE # 78											
AII	78	2	0015	0000	8	731024	23 24.0'N	50 45.0'W	9	78.30	0015	5420.	4680.	0160	15	0000	0	
AII	78	2	0016	0000	8	731025	23 25.0'N	52 2.0'W	9	78.32	0016	5615.	4810.	0100	15	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR EN DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 78											
CHN	39	2	0003	0000	8	63 9 9	25 14.0'N	54 51.0'W	5	78.54	0002	6228.	6177.	113G	11	0000	0	
CHN	39	2	0005	0000	8	63 910	25 12.0'N	55 28.0'W	5	78.55	0003	5564.	4722.	227G	11	0000	0	
CHN	39	2	0006	0000	10	63 911	24 28.0'N	55 6.0'W	5	78.45	0004	6097.	5884.	1.1K	11	0000	0	
CHN	39	2	0008	0000	8	63 912	23 58.0'N	55 .0'W	5	78.35	0005	5820.	4935.	227G	11	0000	0	
CHN	39	2	0012	0000	8	63 916	29 14.0'N	59 47.0'W	5	78.99	0006	5578.	5537.	113G	11	0000	0	
CHN	39	2	0013	0000	8	63 917	29 22.0'N	59 48.0'W	5	78.99	0007	5723.	5472.	454G	11	0000	0	
CHN	39	2	0014	0000	8	63 918	29 47.0'N	59 39.0'W	5	78.99	0008	5647.	5076.	227G	11	0000	0	
							MARSDEN SQUARE # 79											
AII	11	2	0021	0000	8	64 7 5	20 6.0'N	65 8.0'W	5	79.05	0001	7861.	6671.	107K	5	0000	0	
AII	11	2	0022	0000	8	64 7 6	20 6.8'N	65 3.8'W	5	79.05	0002	7265.	6572.	200K	5	0000	0	
AII	11	2	0024	0000	8	64 7 7	20 6.0'N	65 7.0'W	5	79.05	0003	7463.	6078.	046K	5	0000	0	
AII	11	2	0025	0000	8	64 7 8	20 .8'N	65 9.0'W	5	79.05	0004	8140.	7463.	073K	5	0000	0	
AII	11	2	0026	0000	8	64 7 9	19 59.0'N	65 14.0'W	5	79.95	0005	7244.	7190.	027K	5	0000	0	
AII	11	2	0030	0000	8	64 710	20 8.0'N	65 3.5'W	5	79.05	0008	7352.	7287.	118K	5	0000	0	
CHN	11	4	0039	0000	7	60 3 7	20 .0'N	66 36.0'W	4	79.06	0039	5302.	5302.	700G	17	0000	0	
CHN	34	1	0002	0000	8	6212 3	19 57.0'N	66 28.5'W	5	79.96	0002	7362.	7362.	001K	17	0000	0	
CHN	34	1	0003	0000	8	6212 4	20 16.0'N	65 41.0'W	5	79.05	0003	7002.	6127.	126K	17	0000	0	
CHN	34	1	0004	0000	8	6212 4	20 12.5'N	65 48.0'W	5	79.05	0004	6687.	6518.	3.6K	17	0000	0	
CHN	57	1	0019	0000	8	66 322	20 2.3'N	66 7.5'W	4	79.06	0001	7183.	6671.	002K	17	0000	0	
CHN	57	1	0020	0000	7	66 322	20 1.5'N	66 10.0'W	5	79.06	0001	6807.	6671.	1.3K	17	0000	0	
CHN	57	1	0031	0000	7	66 4 7	20 3.9'N	65 51.0'W	4	79.05	0002	7457.	7145.	340G	17	0000	0	
							MARSDEN SQUARE # 83											
GIL	107	1	0001	0000	8	791021	22 50.1'N	108 8.4'W	9	83.28	0001	3215.	3125.	0090	14	0000	0	
GIL	107	1	0002	0000	8	791022	22 45.2'N	108 10.0'W	9	83.28	0002	3050.	3050.	0075	16	0000	0	
GIL	107	1	0003	0000	8	791022	22 41.8'N	108 13.6'W	9	83.28	0003	3000.	3035.	0022	16	0000	0	
GIL	107	1	0004	0000	8	791022	22 40.4'N	108 14.3'W	9	83.28	0004	2975.	3035.	0005	16	0000	0	
GIL	107	1	0005	0000	8	791023	22 34.6'N	108 24.0'W	9	83.28	0005	2900.	2865.	0010	16	0000	0	
GIL	107	1	0006	0000	8	791023	22 35.5'N	108 19.7'W	9	83.28	0006	2975.	2875.	0200	16	0000	0	
GIL	107	1	0007	0000	8	791024	22 25.9'N	108 24.6'W	9	83.28	0007	2630.	2630.	0160	16	0000	0	
GIL	107	1	0008	0000	8	791024	22 29.4'N	108 25.2'W	9	83.28	0008	2650.	2720.	0100	16	0000	0	
GIL	107	1	0009	0000	8	791024	22 54.1'N	108 24.3'W	9	83.28	0009	3195.	3195.	0008	16	0000	0	
GIL	107	1	0010	0000	8	791024	22 50.7'N	108 7.1'W	9	83.28	0010	3200.	3100.	0010	16	0000	0	
GIL	107	1	0011	0000	8	791025	22 31.0'N	108 22.9'W	9	83.28	0011	2900.	2835.	0400	16	0000	0	
GIL	107	1	0012	0000	8	791024	22 33.5'N	108 24.2'W	9	83.28	0012	2880.	2780.	0025	16	0000	0	
GIL	107	1	0013	0000	8	791025	22 58.5'N	108 9.5'W	9	83.28	0013	2780.	2850.	0006	16	0000	0	
GIL	107	1	0014	0000	8	791026	22 27.0'N	108 23.4'W	9	83.28	0014	2630.	2630.	0007	16	0000	0	
GIL	107	1	0015	0000	8	791026	22 31.1'N	108 19.5'W	9	83.28	0015	2770.	2750.	0130	16	0000	0	
GIL	107	1	0016	0000	8	791026	22 51.9'N	108 10.4'W	9	83.28	0016	2720.	2895.	0060	16	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
								MARSDEN SQUARE # 83										
GIL	107	1	0017	0000	8	791027	22 37.2'N	108 14.6'W	9	83.28	0017	3000.	2950.	0065	16	0000	C	
GIL	107	1	0018	0000	8	791027	22 39.3'N	108 14.5'W	9	83.28	0018	2995.	2978.	0105	16	0000	C	
								MARSDEN SQUARE # 105										
CHN	43	1	0003	0000	8	64 325	20 58.8'N	38 9.5'E	5	105.08	0001	2131.	1543.	456G	16	0000	0	
CHN	43	1	0076	0000	8	64 6 9	28 53.0'N	32 58.0'E	5	105.82	0029	49.	49.	002K	21	0000	0	
CHN	61	7	0145	0000	8	6611 2	21 22.0'N	38 4.2'E	10	105.18	0002	2130.	2130.	680G	21	0000	0	
								MARSDEN SQUARE # 110										
CHN	7	1	0002	0000	7	59 510	36 13.0'N	12 15.0'W	4	110.62	0002	114.	114.	012K	12	0000	0	
CHN	7	1	0003	0000	7	59 510	36 13.0'N	12 15.0'W	4	110.62	0003	85.	85.	227G	12	0000	0	
CHN	7	1	0004	0000	7	59 510	36 12.0'N	12 15.0'W	4	110.62	0004	95.	123.	6.4K	12	0000	0	
CHN	7	9	0019	0000	7	59 725	35 5.0'N	12 13.0'W	4	110.52	0019	169.	199.	1.4K	12	0000	0	
CHN	7	9	0020	0000	7	59 725	35 5.0'N	12 13.0'W	4	110.52	0020	208.	98.	4.5K	12	0000	0	
CHN	7	9	0021	0000	7	59 725	33 44.0'N	14 20.0'W	4	110.34	0021	199.	199.	085G	12	0000	0	
CHN	7	9	0022	0000	7	59 725	33 44.0'N	14 20.0'W	4	110.34	0022	415.	274.	3.2K	12	0000	0	
CHN	7	9	0023	0000	7	59 725	33 44.0'N	14 20.0'W	4	110.34	0023	772.	500.	567G	12	0000	0	
								MARSDEN SQUARE # 111										
AII	13	1	0076	0000	8	64 924	37 51.0'N	25 52.0'W	1	111.75	0002	73.	73.	004K	1	0000	0	
CHN	7	9	0001	0000	8	59 730	30 2.0'N	28 34.0'W	4	111.08	0001	640.	612.	020K	12	0000	0	
CHN	7	9	0002	0000	8	59 730	30 2.0'N	28 33.0'W	4	111.08	0002	4988.	4988.	3.2K	12	0000	0	
CHN	7	9	0024	0000	7	59 731	30 .0'N	28 25.0'W	4	111.08	0024	295.	295.	340G	12	0000	0	
CHN	7	9	0025	0000	7	59 731	30 .0'N	28 23.0'W	4	111.08	0025	295.	295.	3.2K	12	0000	0	
CHN	7	9	0026	0000	7	59 731	30 .0'N	28 33.0'W	4	111.08	0026	1598.	1261.	113G	12	0000	0	
CHN	7	9	0027	0000	7	59 8 1	30 .0'N	28 30.0'W	4	111.08	0027	288.	288.	4.6K	12	0000	0	
								MARSDEN SQUARE # 112										
AII	13	1	0077	0000	8	64 926	39 35.0'N	31 12.0'W	1	112.91	0003	191.	191.	004K	1	0000	0	
AII	73	1	0010	0000	8	721124	36 44.7'N	33 15.2'W	11	112.63	0002	2328.	2391.	016K	14	0000	0	
AII	73	1	0012	0000	8	721125	36 44.4'N	33 16.7'W	11	112.63	0003	2476.	2426.	120G	16	0000	0	
AII	73	1	0014	0000	8	721125	36 44.5'N	33 17.2'W	11	112.63	0004	2519.	2475.	066K	16	0000	0	
AII	73	1	0016	0000	8	721126	36 42.0'N	33 17.6'W	11	112.63	0005	2627.	2627.	6.6K	16	0000	0	
AII	73	1	0018	0000	8	721126	36 44.5'N	33 17.1'W	11	112.63	0006	2589.	2589.	9.1K	16	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DEVICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARSDEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIOGRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
								MARSDEN SQUARE # 112										
AII	73	1	0024	0000	8	721127	36 45.5'N	33 21.2'W	11	112.63	0008	1745.	1477.	073G	16	0000	0	
AII	73	1	0038	0000	8	7212 6	36 29.7'N	33 23.9'W	11	112.63	0009	2626.	2626.	8.7K	16	0000	0	
AII	73	1	0047	0000	8	7212 9	36 30.6'N	33 25.3'W	11	112.63	0012	2781.	2250.	017K	16	0000	0	
AII	73	1	0050	0000	8	7212 9	36 29.3'N	33 39.0'W	11	112.63	0013	2589.	2589.	011K	16	0000	0	
AII	77	2	0019	0000	8	73 811	36 32.5'N	33 34.0'W	1	112.63	0002	2713.	2713.	6.8K	16	0000	0	
AII	77	2	0023	0000	8	73 813	36 34.5'N	33 37.0'W	1	112.63	0003	2913.	2900.	4.9K	16	0000	0	
AII	77	2	0026	0000	8	73 814	36 25.0'N	33 46.0'W	10	112.63	0004	2671.	2671.	016K	16	0000	0	
AII	77	2	0028	0000	8	73 814	36 34.0'N	33 37.0'W	11	112.63	0005	2738.	2738.		16	0000	0	
AII	77	2	0037	0000	8	73 820	36 43.0'N	33 20.0'W	11	112.63	0006	2437.	2437.	228K	16	0000	0	
AII	77	2	0038	0000	8	73 820	36 43.0'N	33 20.5'W	11	112.63	0007	2443.	2443.	120K	16	0000	0	
AII	77	2	0045	0000	8	73 820	36 35.0'N	33 42.5'W	10	112.63	0008	2500.	2500.	570G	16	0000	0	
AII	77	2	0048	0000	8	73 821	36 37.0'N	33 31.0'W	11	112.63	0009	2437.	2437.	038K	19	0000	0	
AII	77	2	0052	0000	8	73 822	36 35.0'N	33 31.5'W	11	112.63	0010	2437.	2437.	120K	16	0000	0	
AII	77	2	0058	0000	8	73 823	36 27.5'N	33 35.0'W	11	112.63	0011	2231.	2231.	029K	16	0000	0	
AII	77	2	0062	0000	8	73 824	36 27.0'N	33 55.0'W	10	112.63	0012	1408.	1408.	013K	14	0000	0	
AII	77	2	0063	0000	8	73 824	36 26.0'N	33 53.5'W	10	112.63	0013	1876.	1876.	024K	14	0000	0	
AII	77	2	0067	0000	8	73 826	36 26.5'N	33 40.0'W	11	112.63	0014	2616.	2616.	035K	16	0000	0	
AII	77	2	0070	0000	8	73 826	36 26.5'N	33 41.0'W	9	112.63	0015	2437.	2437.	015K	16	0000	0	
AII	77	2	0071	0000	8	73 827	36 24.4'N	33 40.8'W	9	112.63		2500.	2700.	018K	16	0000	0	
				COMMENTS				ANGUS CAMERA FRAME RECOVERED THIS BASALT										
AII	77	2	0076	0000	8	73 828	36 26.5'N	33 38.5'W	11	112.63	0016	2518.	2518.	198K	16	0000	0	
GIL	103	1	0001	0000	8	78 729	36 47.6'N	33 18.3'W	9	112.63	0001	1968.	1968.		16	0000	0	
GIL	103	1	0004	0000	8	78 8 1	36 26.6'N	33 37.6'W	11	112.63	0004	2616.	2440.		16	0000	0	
GIL	103	1	0005	0000	8	78 8 2	36 25.7'N	33 38.9'W	11	112.63	0005	2627.	2551.		16	0000	0	
GIL	103	1	0006	0000	8	78 8 2	36 26.5'N	33 41.0'W	11	112.63	0006	2400.	2400.		16	0000	0	
GIL	103	1	0008	0000	8	78 8 3	36 28.9'N	33 40.0'W	11	112.63	0008	2485.	2477.		16	0000	0	
GIL	103	1	0009	0000	8	78 8 4	36 27.8'N	33 37.8'W	11	112.63	0009	2590.	2230.		16	0000	0	
GIL	103	1	0016	0000	8	78 813	36 46.8'N	33 16.7'W	11	112.63	0016	2617.	2617.		16	0000	0	
GIL	103	1	0020	0000	8	78 815	36 46.4'N	33 17.3'W	11	112.63	0020	2694.	2694.		16	0000	0	
GIL	103	1	0021	0000	8	78 816	36 46.5'N	33 16.6'W	11	112.63	0021	2627.	2589.		16	0000	0	
GIL	103	1	0022	4000	8	78 817	36 47.6'N	33 17.4'W	11	112.63	0024	2484.	2250.		16	0000	0	
GIL	103	1	0023	0000	8	78 816	36 45.5'N	33 17.5'W	11	112.63	0023	2532.	2203.		16	0000	0	
GIL	103	1	0027	0000	8	78 817	36 27.1'N	33 40.9'W	11	112.63	0027	2231.	2276.		16	0000	0	
GIL	103	1	0029	0000	8	78 818	36 47.1'N	33 16.5'W	11	112.63	0029	2523.	2523.		16	0000	0	
GIL	103	1	0030	0000	8	78 818	36 45.5'N	33 15.7'W	11	112.63	0030	2100.	2100.		16	0000	0	
GIL	103	1	0032	0000	8	78 820	36 43.8'N	33 17.5'W	11	112.63	0032	2484.	2390.		16	0000	0	
GIL	103	1	0033	0000	8	78 820	36 46.8'N	33 15.8'W	11	112.63	0033	2674.	2334.		16	0000	0	
GIL	103	1	0035	0000	8	78 820	36 47.8'N	33 16.9'W	11	112.63	0035	2532.	2390.		16	0000	0	
GIL	103	1	0037	0000	8	78 821	36 27.2'N	33 38.6'W	11	112.63	0037	2579.	2560.		16	0000	0	
GIL	103	1	0038	0000	8	78 821	36 25.4'N	33 39.2'W	11	112.63	0038	2580.	2532.		16	0000	0	
GIL	103	1	0041	0000	8	78 823	36 26.6'N	33 95.2'W	11	112.63	0041	2532.	2457.		16	0000	0	
GIL	103	1	0043	0000	8	78 824	36 26.5'N	33 41.1'W	11	112.63	0043	2484.	2580.		16	0000	0	
GIL	103	1	0046	0000	8	78 824	36 26.5'N	33 41.1'W	11	112.63	0046	2484.	2250.		16	0000	0	
GIL	103	1	0047	0000	8	78 825	36 45.8'N	33 18.8'W	11	112.63	0047	2391.	1905.		16	0000	0	
KNR	42	2	0025	0000	8	74 629	36 56.7'N	33 9.1'W	9	112.63	0003	2993.	2963.	1.6K	19	0000	0	
KNR	42	2	0028	0000	8	74 630	36 54.9'N	33 9.8'W	9	112.63	0004	2889.	2608.	041K	19	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 112											
KNR	42	2	0033	0000	8	74 7 2	36 57.0'N	33 7.9'W	9	112.63	0005	2908.	2533.	007K	19	0000	0	
KNR	42	2	0035	0000	8	74 7 3	36 56.4'N	33 8.1'W	9	112.63	0006	3041.	2685.	3.5K	19	0000	0	
KNR	42	3	0051	0000	8	74 715	36 36.1'N	33 24.8'W	9	112.63	0008	2599.	2174.	065K	19	0000	0	
KNR	42	3	0068	0000	8	74 717	36 50.8'N	33 23.3'W	9	112.63	0009	1564.	1465.	015K	19	0000	0	
KNR	42	3	0077	0000	8	74 718	36 36.9'N	33 27.6'W	9	112.63	0011	2137.	1763.	169K	19	0000	0	
KNR	42	3	0086	0000	8	74 719	36 38.4'N	33 19.5'W	9	112.63	0012	2901.	2740.	178K	16	0000	0	
KNR	42	3	0102	0000	8	74 722	36 50.8'N	33 19.7'W	9	112.63	0016	1603.	0.	005K	14	0000	0	
KNR	42	3	0108	0000	8	74 723	36 50.6'N	33 21.4'W	9	112.63	0017	1763.	1762.	014K	14	0000	0	
KNR	42	3	0110	0000	8	74 724	36 53.2'N	33 32.1'W	9	112.63	0018	1727.	1347.	2.4K	14	0000	0	
KNR	42	3	0112	0000	8	74 724	36 52.8'N	33 31.7'W	9	112.63	0019	1623.	1732.	0.5K	14	0000	0	
KNR	42	3	0117	0000	8	74 725	36 47.9'N	33 13.7'W	9	112.63	0020	1679.	1648.	1.8K	14	0000	0	
KNR	42	4	0121	0000	8	74 8 3	36 37.5'N	33 28.1'W	9	112.63	0021	1838.	1801.	101K	19	0000	0	
KNR	42	4	0122	0000	8	74 8 3	36 37.3'N	33 28.0'W	9	112.63	0022	1932.	1857.	064K	19	0000	0	
KNR	42	4	0129	0000	8	74 8 3	36 36.4'N	33 28.5'W	9	112.63	0024	2118.	2025.	075K	19	0000	0	
KNR	42	4	0130	0000	8	74 8 4	36 34.9'N	33 27.2'W	9	112.63	0025	2104.	2102.	073K	19	0000	0	
KNR	42	4	0131	0000	8	74 8 4	36 36.4'N	33 29.3'W	9	112.63	0026	2062.	2034.	019K	19	0000	0	
KNR	42	4	0137	0000	8	74 8 5	36 50.9'N	33 32.5'W	9	112.63	0027	1353.	1293.	069K	14	0000	0	
KNR	42	4	0145	0000	8	74 8 6	36 33.4'N	33 28.2'W	9	112.63	0029	2141.	2161.	075K	19	0000	0	
KNR	42	4	0146	0000	8	74 8 6	36 31.9'N	33 29.4'W	9	112.63	0030	2108.	1875.	172K	19	0000	0	
KNR	42	5	0156	0000	8	74 816	36 50.8'N	33 32.2'W	9	112.63	0031	1587.	1279.	012K	14	0000	0	
							MARSDEN SQUARE # 113											
CHN	7	9	0028	0000	7	59 8 5	31 18.0'N	44 31.0'W	4	113.14	0028	3614.	3642.	3.7K	15	0000	0	
							MARSDEN SQUARE # 114											
AII	85	1	0017	0000	8	74 9 6	36 51.6'N	58 47.8'W	9	114.68	0017	2900.	2200.	0114	12	0000	0	
AII	85	1	0018	0000	8	74 9 7	36 30.0'N	59 24.7'W	9	114.69	0018	3800.	2550.	0100	12	0000	0	
AII	85	1	0019	0000	8	74 9 7	36 27.9'N	59 27.9'W	9	114.69	0019	2800.	2500.	0095	12	0000	0	
AII	85	1	0020	0000	8	74 9 7	36 21.2'N	59 11.5'W	9	114.69	0020	3200.	2300.	0050	12	0000	0	
AII	85	1	0021	0000	8	74 9 8	36 23.6'N	58 15.5'W	9	114.68	0021	3300.	2300.	0011	12	0000	0	
AII	85	1	0022	0000	8	74 9 8	36 16.1'N	58 19.5'W	9	114.68	0022	3500.	2900.	0010	12	0000	0	
AII	85	1	0023	0000	8	74 9 9	35 17.5'N	57 38.5'W	9	114.57	0023	3600.	2450.	0008	12	0000	0	
AII	85	1	0024	0000	8	74 910	34 28.1'N	56 47.8'W	9	114.46	0024	3050.	3000.	0020	12	0000	0	
ATL	280	1	0012	0000	7	62 619	37 29.0'N	59 47.0'W	5	114.79	0012	1298.	1279.	4.5K	12	0000	0	
ATL	280	1	0013	0000	7	62 619	37 33.0'N	59 48.0'W	5	114.79	0013	1295.	1295.	680G	12	0000	0	
KNR	42	5	0161	0000	8	74 824	34 48.6'N	57 13.4'W	9	114.47	0033	3310.	3084.	007K	12	0000	0	
KNR	42	5	0162	0000	8	74 824	34 53.3'N	57 11.2'W	9	114.47	0034	2706.	2436.	005K	12	0000	0	
KNR	42	5	0166	0000	8	74 825	35 36.3'N	58 41.4'W	6	114.58	0036	4227.	3805.	5.2K	12	0000	0	
KNR	42	5	0168	0000	8	74 826	36 31.6'N	59 25.7'W	9	114.69	0037	4025.	3796.	1.2K	12	0000	0	
KNR	42	5	0171	0000	8	74 827	37 30.6'N	59 52.2'W	6	114.79	0039	1523.	1260.	143K	12	0000	0	

*************** STATION DATA RETRIEVAL *************** PAGE 12
*************** DATE: 17:25 NOV 02,'81 *************** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
								MARSDEN SQUARE # 114										
KNR	61	1	0016	0000	8	7611 9	37 27.2'N	59 45.2'W	6	114.79	0016	2950.	2350.	0005	12	0000	0	
KNR	61	1	0017	0000	8	7611 9	37 26.0'N	59 45.4'W	6	114.79	0017	3000.	3050.	0080	12	0000	0	
KNR	61	1	0019	0000	8	761110	37 27.2'N	59 47.1'W	9	114.79	0019	2800.	2225.	0031	12	0000	0	
KNR	61	1	0022	0000	8	761111	35 18.5'N	57 30.5'W	6	114.57	0022	3200.	2250.	0050	12	0000	0	
KNR	61	1	0023	0000	8	761111	35 18.4'N	57 31.5'W	6	114.57	0023	2625.	2650.	0017	12	0000	0	
KNR	61	1	0024	0000	8	761112	35 18.2'N	57 32.3'W	9	114.57	0024	2725.	2125.	0100	12	0000	0	
KNR	61	1	0027	0000	8	761113	35 6.2'N	57 25.2'W	6	114.57	0027	3500.	2325.	0030	12	0000	0	
KNR	61	1	0028	0000	8	761113	35 5.7'N	57 25.2'W	9	114.57	0028	3200.	2550.	0018	12	0000	0	
KNR	61	1	0029	0000	8	761113	35 5.2'N	57 24.6'W	6	114.57	0029	3025.	2425.	0025	12	0000	0	
KNR	61	1	0031	0000	8	761114	36 18.8'N	58 18.0'W	9	114.68	0031	3125.	1900.	0110	12	0000	0	
KNR	61	1	0032	0000	8	761114	36 18.7'N	58 18.0'W	6	114.68	0032	3150.	2625.	0008	12	0000	0	
KNR	61	1	0033	0000	8	761114	36 19.6'N	58 18.5'W	6	114.68	0033	2975.	2475.	0045	12	0000	0	
								MARSDEN SQUARE # 115										
AII	85	1	0001	0000	8	74 828	39 47.3'N	67 28.0'W	9	115.97	0001	3100.	2400.	0095	12	0000	0	
AII	85	1	0002	0000	8	74 828	39 51.6'N	67 22.4'W	9	115.97	0002	2000.	1700.	0033	12	0000	0	
AII	85	1	0006	0000	8	74 830	39 36.9'N	66 3.7'W	9	115.96	0006	3750.	2250.	0035	12	0000	0	
AII	85	1	0007	0000	8	74 830	39 40.0'N	66 3.0'W	9	115.96	0007	2800.	2225.	0200	12	0000	0	
AII	85	1	0008	0000	8	74 830	39 38.6'N	65 53.1'W	9	115.95	0008	3300.	2600.	0148	12	0000	0	
AII	85	1	0009	0000	8	74 9 1	38 41.4'N	64 9.2'W	9	115.84	0009	4300.	3300.	0170	12	0000	0	
AII	85	1	0010	0000	8	74 9 1	38 44.0'N	64 8.1'W	9	115.84	0010	2600.	1850.	0074	12	0000	0	
AII	85	1	0011	0000	8	74 9 1	38 50.0'N	64 3.8'W	9	115.84	0011	2300.	1800.	0093	12	0000	0	
AII	85	1	0012	0000	8	74 9 2	38 24.6'N	63 14.7'W	9	115.83	0012	3300.	3100.	0095	12	0000	0	
AII	85	1	0013	0000	8	74 9 3	38 25.3'N	63 13.9'W	9	115.83	0013	2500.	2200.	0175	12	0000	0	
AII	85	1	0014	0000	8	74 9 3	38 6.8'N	62 11.6'W	9	115.83	0014	2900.	2100.	0086	12	0000	0	
AII	85	1	0016	0000	8	74 9 6	36 49.3'N	62 12.5'W	9	115.62	0016	3900.	3300.	0041	12	0000	0	
AII	86	3	0417	0000	8	75 314	39 30.0'N	70 40.0'W	6	115.90		2460.	2480.	014K	6	0000	0	BEAM TRAWL
AII	86	3	0424	0000	8	75 316	39 27.0'N	70 28.0'W	6	115.90		2505.	2530.	011K	6	0000	0	41FT. TRAWL
AII	86	3	0432	0000	8	75 319	39 31.0'N	70 20.0'W	6	115.90		2350.	2450.	015K	6	0000	0	41FT TRAWL
ATL	260	1	0007	0000	7	601018	33 34.0'N	62 26.0'W	5	115.32	0007	1542.	1497.	113G	12	0000	0	
ATL	260	1	0008	0000	7	601018	33 36.0'N	62 25.5'W	5	115.32	0008	1422.	1422.	8.9K	12	0000	0	
ATL	260	1	0009	0000	7	601020	33 36.5'N	62 24.5'W	5	115.32	0009	2553.	2630.	1.5K	12	0000	0	
ATL	280	1	0003	0000	7	62 616	38 54.0'N	61 1.0'W	5	115.81	0003	1298.	1241.	2.3K	12	0000	0	
ATL	280	1	0004	0000	7	62 616	38 57.0'N	60 58.0'W	5	115.80	0004	1150.	1114.	227G	12	0000	0	
ATL	280	1	0005	0000	7	62 616	38 55.0'N	60 58.0'W	5	115.80	0005	1041.	1034.	010K	12	0000	0	
ATL	280	1	0006	0000	7	62 616	38 58.0'N	60 57.0'W	5	115.80	0006	935.	944.	009K	12	0000	0	
ATL	280	1	0009	0000	7	62 617	38 52.0'N	60 27.0'W	5	115.80	0009	1879.	1879.	227G	12	0000	0	
ATL	280	1	0010	0000	7	62 618	38 13.0'N	60 26.0'W	5	115.80	0010	1785.	1785.	012K	12	0000	0	
ATL	280	1	0014	0000	7	62 620	38 3.0'N	62 9.0'W	5	115.82	0014	1954.	1954.	011K	12	0000	0	
ATL	280	1	0015	0000	7	62 620	38 4.0'N	62 8.0'W	5	115.82	0015	1474.	1474.	2.3K	12	0000	0	
ATL	280	1	0016	0000	7	62 621	38 30.0'N	63 13.0'W	5	115.83	0016	1692.	1708.	011K	12	0000	0	
ATL	281	1	0017	0000	8	62 628	39 25.0'N	65 24.0'W	5	115.95	0017	1463.	0.	017K	12	0000	0	
ATL	281	1	0019	0000	8	62 629	39 23.0'N	67 11.0'W	5	115.97	0019	0.	0.	907G	12	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
								MARSDEN SQUARE # 115										
ATL	281	1	0020	0000	9	62 630	39 52.5'N	67 28.0'W	5	115.97	0020	1401.	0.	6.6K	12	0000	0	
ATL	296	C	0001	0000	8	63 8 8	38 16.0'N	63 5.0'W	5	115.83	0001	3691.	3254.	1.5K	12	0000	0	
ATL	296	C	0002	0000	7	63 8 8	38 22.0'N	63 7.0'W	5	115.83	0002	3539.	3444.	010G	12	0000	0	
ATL	296	C	0003	0000	8	63 8 9	39 31.0'N	65 21.0'W	5	115.95	0003	3382.	3307.	001K	12	0000	0	
ATL	296	0	0004	0000	8	63 8 9	39 31.0'N	65 21.0'W	5	115.35	0004	4143.	3961.	1.6K	12	0000	C	
ATL	296	0	0006	0000	8	63 810	39 37.0'N	65 57.0'W	5	115.95	0006	3004.	1961.	007K	12	0000	0	
ATL	296	C	0007	0000	8	63 810	39 37.0'N	65 59.0'W	5	115.95	0007	3476.	2437.	011K	12	0000	0	
ATL	296	0	0008	0000	8	63 811	39 29.0'N	65 26.0'W	5	115.95	0008	2617.	2947.	008K	12	0000	C	
CHN	9	6	0030	0000	7	591018	31 53.9'N	65 12.3'W	5	115.15	0002	1972.	1372.	028G	5	0000	0	
CHN	9	6	0031	0000	7	591018	31 54.7'N	65 12.9'W	5	115.15	0003	1128.	1035.	003K	5	0000	0	
CHN	9	7	0032	0000	7	591021	31 54.3'N	65 12.0'W	5	115.15	0005	1207.	1207.	340G	5	0000	C	
CHN	9	7	0033	0000	7	591021	31 54.2'N	65 13.1'W	5	115.15	0006	1636.	1542.	227G	5	0000	0	
CHN	9	7	0034	0000	7	591021	31 54.2'N	65 12.8'W	5	115.15	0007	1542.	1692.	002K	5	0000	0	
CHN	9	7	0035	0000	7	591021	31 55.0'N	65 11.8'W	5	115.15	0008	885.	940.	002G	5	0000	C	
CHN	9	7	0036	0000	7	591021	31 54.9'N	65 12.7'W	5	115.15	0009	1128.	997.	113G	5	0000	0	
CHN	21	1	0002	0000	8	61 818	36 40.0'N	67 56.5'W	5	115.67	0002	3292.	3283.	7.6K	12	0000	0	
CHN	36	1	0018	0000	8	63 7 8	36 42.0'N	67 59.0'W	5	115.67	0006	4327.	4111.	051K	12	0000	0	
CHN	58	1	0100	0000	8	66 5 1	33 56.8'N	65 47.0'W	1	115.35	0009	4743.	4892.	035K	13	0000	0	
				COMMENTS				DEVICE: EPIBENTHIC TRAWL										
KNR	42	5	0174	0000	8	74 828	38 11.3'N	60 56.6'W	6	115.80	0040	3777.	3653.	250G	12	0000	0	
KNR	42	5	0177	0000	8	74 830	39 29.6'N	65 24.1'W	6	115.95	0041	2798.	1887.	100G	12	0000	C	
KNR	42	5	0178	0000	8	74 830	39 27.0'N	65 27.3'W	6	115.95	0042	2240.	2531.	012K	12	0000	C	
KNR	42	5	0180	0000	8	74 831	39 50.2'N	66 12.6'W	6	115.96	0043	2354.	1885.	021K	12	0000	0	
KNR	42	5	0181	0000	8	74 831	39 51.0'N	66 52.8'W	6	115.96	0044	2825.	1885.	002K	12	0000	C	
KNR	42	5	0182	0000	8	74 9 1	39 23.6'N	67 14.0'W	6	115.97	0045	3040.	3095.	100G	12	0000	0	
KNR	61	1	0005	0000	8	7611 5	39 46.1'N	66 17.4'W	9	115.96	0005	2900.	3900.	0071	12	0000	C	
KNR	61	1	0008	0000	8	7611 5	39 48.0'N	66 18.8'W	6	115.96	0008	2800.	2700.	02.6	12	0000	C	
KNR	61	1	0009	0000	8	7611 7	38 28.3'N	63 10.5'W	9	115.83	0009	2000.	1850.	0059	12	0000	0	
KNR	61	1	0010	0000	8	7611 7	38 26.7'N	63 9.7'W	6	115.83	0010	2150.	2025.	00.5	12	0000	0	
KNR	61	1	0013	0000	8	7611 8	38 26.8'N	63 9.6'W	6	115.83	0013	2375.	2350.	0005	12	0000	0	
KNR	61	1	0014	0000	8	7611 8	38 26.0'N	62 51.0'W	6	115.82	0014	3125.	2550.	0072	12	0000	C	
KNR	61	1	0015	0000	8	7611 8	38 26.3'N	62 50.5'W	9	115.82	0015	3300.	2400.	0036	12	0000		
KNR	61	1	0034	0000	8	761116	39 2.7'N	60 55.6'W	9	115.90	0034	2650.	2475.	0002	12	0000	0	
KNR	61	1	0037	0000	8	761116	38 53.8'N	60 57.8'W	6	115.80	0037	2100.	1850.	0034	12	0000	0	
KNR	61	1	0038	0000	8	761117	38 54.6'N	60 59.2'W	9	115.80	0038	1575.	1100.	0040	12	0000	C	
KNR	61	1	0039	0000	8	761117	38 55.3'N	60 58.6'W	6	115.80	0039	1450.	1125.	0025	12	0000	0	
KNR	61	1	0042	0000	8	761118	38 34.6'N	60 8.0'W	6	115.80	0042	3075.	2800.	0020	12	0000	0	
KNR	61	1	0043	0000	8	761118	38 34.2'N	60 10.8'W	6	115.80	0043	2700.	2275.	03.4	12	0000	C	
KNR	61	1	0044	0000	8	761118	38 18.4'N	62 56.0'W	9	115.82	0044	3925.	3150.	0050	12	0000	0	
KNR	61	1	0045	0000	8	761119	38 18.0'N	62 56.4'W	6	115.82	0045	3700.	2575.	0055	12	0000	0	
KNR	61	1	0046	0000	8	761120	39 46.2'N	66 16.5'W	6	115.96	0046	3275.	2750.	07.4	12	0000	C	
KNR	61	1	0047	0000	8	761122	39 47.2'N	66 16.8'W	9	115.96	0047	2725.	3000.	0070	12	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE- VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS- DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO- GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
								MARSDEN SQUARE # 116										
AII	1	1	0002	0000	7	63 3 4	39 43.0'N	70 42.6'W	5	116.90	0002	2027.	2027.	7.4K	4	0000	0	
ATL	266	1	0002	0000	8	61 625	31 58.0'N	77 18.5'W	5	116.17	0002	843.	843.	020K	7	0000	0	
ATL	266	1	0003	0000	7	61 626	31 56.5'N	77 26.0'W	5	116.17	0003	739.	739.	012K	7	0000	0	
ATL	266	1	0004	0000	7	61 626	31 56.0'N	77 26.0'W	5	116.17	0004	815.	815.	012K	7	0000	0	
ATL	266	1	0005	0000	7	61 627	31 53.0'N	77 27.2'W	5	116.17	0005	815.	815.	020K	7	0000	0	
ATL	266	1	0006	0000	7	61 627	31 54.8'N	77 25.0'W	5	116.17	0006	739.	739.	014K	7	0000	0	
ATL	266	1	0007	0000	7	61 628	31 53.0'N	77 22.5'W	5	116.17	0007	739.	834.	010K	7	0000	0	
ATL	266	1	0008	0000	7	61 628	31 53.0'N	77 21.0'W	5	116.17	0008	834.	834.	7.9K	7	0000	0	
ATL	266	1	0012	0000	7	61 630	31 49.0'N	76 49.0'W	5	116.16	0012	1320.	1320.	1.2K	7	0000	0	
ATL	266	1	0016	0000	7	61 7 1	31 51.0'N	77 28.0'W	5	116.17	0016	689.	689.	015K	7	0000	0	
ATL	266	1	0017	0000	7	61 7 1	31 52.0'N	77 28.0'W	5	116.17	0017	676.	676.	017K	7	0000	0	
ATL	266	1	0018	0000	7	61 7 2	32 .5'N	77 35.0'W	5	116.27	0018	677.	677.	454G	7	0000	0	
ATL	266	1	0019	0000	7	61 7 2	32 1.0'N	77 34.0'W	5	116.27	0019	684.	684.	567G	7	0000	0	
ATL	266	1	0020	0000	8	61 7 3	31 49.0'N	77 38.0'W	5	116.17	0020	692.	692.	567G	7	0000	0	
ATL	266	1	0021	0000	8	61 7 3	31 50.5'N	77 37.0'W	5	116.17	0021	696.	696.	016K	7	0000	0	
ATL	266	1	0022	0000	8	61 7 3	31 49.5'N	77 37.0'W	5	116.17	0022	705.	705.	018K	7	0000	0	
ATL	266	1	0025	0000	7	61 7 6	31 48.0'N	77 34.0'W	5	116.17	0025	668.	668.	1.4K	7	0000	0	
ATL	266	1	0026	0000	7	61 7 6	31 49.5'N	77 34.5'W	5	116.17	0026	865.	865.	010K	7	0000	0	
ATL	266	1	0040	0000	8	61 713	30 53.0'N	78 47.0'W	5	116.08	0040	836.	836.	026K	7	0000	0	
ATL	266	1	0041	0000	8	61 715	30 59.0'N	78 14.0'W	5	116.08	0041	903.	903.	9.1K	7	0000	0	
ATL	266	1	0042	0000	7	61 715	30 59.0'N	78 13.0'W	5	116.08	0042	834.	834.	013K	7	0000	0	
ATL	266	1	0043	0000	7	61 717	30 57.0'N	78 21.0'W	5	116.08	0043	954.	954.	9.1K	7	0000	0	
ATL	266	1	0045	0000	8	61 718	30 58.0'N	78 30.0'W	5	116.08	0045	833.	833.	044K	7	0000	0	
ATL	266	1	0046	0000	8	61 718	30 58.5'N	78 30.0'W	5	116.08	0046	847.	847.	4.8K	7	0000	0	
ATL	266	1	0047	0000	8	61 719	30 55.0'N	78 39.0'W	5	116.08	0047	842.	842.	6.6K	7	0000	0	
ATL	266	1	0049	0000	7	61 719	30 54.0'N	78 41.0'W	5	116.08	0049	845.	845.	4.3K	7	0000	0	
ATL	266	1	0050	0000	7	61 721	31 52.5'N	79 10.0'W	5	116.19	0050	489.	489.	3.9K	7	0000	0	
ATL	266	1	0051	0000	7	61 723	34 1.2'N	75 50.5'W	5	116.45	0051	659.	659.	001K	7	0000	0	
ATL	266	1	0052	0000	7	61 723	34 2.0'N	75 40.0'W	5	116.45	0052	1993.	1993.	1.3K	7	0000	0	
CHN	46	1	0011	0000	7	65 4 6	30 12.2'N	77 50.0'W	5	116.07	0004	819.	818.	1.1K	7	0000	0	
CHN	46	1	0012	0000	7	65 4 6	30 25.9'N	77 52.0'W	5	116.07	0005	815.	815.	1.4K	7	0000	0	
CHN	46	1	0015	0000	7	65 4 7	30 43.8'N	78 5.0'W	5	116.08	0006	875.	875.	1.4K	7	0000	0	
CHN	46	1	0018	0000	7	65 4 7	30 50.0'N	78 11.0'W	5	116.08	0007	843.	843.	7.7K	7	0000	0	
CHN	52	1	0001	0000	7	65 927	30 1.0'N	76 43.2'W	5	116.06	0001	1269.	1267.	1.4K	7	0000	0	
CHN	52	1	0004	0000	7	65 929	31 45.2'N	79 8.7'W	5	116.19	0002	528.	528.	1.6K	7	0000	0	
CHN	52	1	0005	0000	7	65 929	31 40.5'N	79 12.0'W	5	116.19	0003	509.	509.	1.8K	7	0000	0	
CHN	52	1	0007	0000	7	65 929	31 35.1'N	79 13.9'W	5	116.19	0004	464.	458.	010G	7	0000	0	
CHN	52	1	0008	0000	7	65 930	31 36.6'N	79 17.0'W	5	116.19	0005	453.	453.	2.3K	7	0000	0	
CHN	52	1	0009	0000	7	65 930	31 38.5'N	79 21.7'W	5	116.19	0006	528.	519.	1.9K	7	0000	0	
CHN	52	1	0011	0000	8	6510 1	32 5.3'N	78 50.0'W	5	116.28	0007	383.	398.	042K	7	0000	0	
CHN	52	1	0012	0000	7	6510 3	32 11.3'N	75 51.0'W	5	116.25	0008	2560.	2566.	1.5K	7	0000	0	
GOS	73	1	0001	0000	7	65 713	33 10.0'N	78 20.0'W	5	116.38	0001	28.	0.	1.5K	7	0000	0	
GOS	73	1	0002	0000	7	65 718	30 13.0'N	78 37.6'W	5	116.08	0002	809.	0.	910G	7	0000	0	
GOS	73	1	0004	0000	7	65 718	30 15.2'N	78 39.5'W	5	116.08	0004	809.	0.	100G	7	0000	0	
GOS	73	1	0005	0000	7	65 718	30 14.8'N	78 39.6'W	5	116.08	0005	809.	0.	1.7K	7	0000	0	
GOS	73	1	0006	0000	7	65 718	30 15.8'N	78 41.7'W	5	116.08	0006	790.	0.	1.6K	7	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 116											
GOS	73	1	0007	0000	7	65 719	30 41.5'N	78 52.6'W	5	116.08	0007	0.	0.	2.7K	7	0000	0	
GOS	73	1	0008	0000	7	65 719	30 38.7'N	78 51.5'W	5	116.08	0008	847.	0.	002K	7	0000	0	
							MARSDEN SQUARE # 141											
AII	15	3	0008	0000	8	65 213	30 21.5'N	32 19.0'E	1	141.02	0001	7.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0009	0000	8	65 213	30 19.5'N	32 19.7'E	1	141.02	0002	9.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0015	0000	8	65 214	30 20.9'N	32 25.7'E	1	141.02	0003	9.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0016	0000	8	65 214	30 23.0'N	32 24.0'E	1	141.02	0004	4.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0017	0000	8	65 214	30 23.8'N	32 21.5'E	1	141.02	0005	5.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0018	0000	8	65 214	30 23.4'N	32 18.8'E	1	141.02	0006	4.	0.	113G	99	0000	0	BITTER LAKE
AII	15	3	0019	0000	8	65 214	30 21.5'N	32 19.0'E	1	141.02	0007	7.	0.	113G	99	0000	0	BITTER LAKE
CHN	43	1	0078	0000	8	64 617	33 24.5'N	35 12.0'E	5	141.35	0030	49.	49.	005K	2	0000	0	
CHN	43	1	0079	0000	8	64 617	33 23.0'N	35 7.0'E	5	141.35	0031	577.	577.	113G	4	0000	0	
CHN	119	2	0044	0000	8	75 328	31 41.2'N	30 30.3'E	1	141.10	0001	29.	33.	570G	24	0000	0	
CHN	119	2	0060	0000	8	75 329	31 36.9'N	30 7.0'E	3	141.10	0002	219.	63.	254G	25	0000	0	
CHN	119	2	0092	0000	8	75 4 2	31 40.7'N	30 41.3'E	3	141.10	0003	17.	17.	425G	24	0000	0	
CHN	119	2	0105	0000	8	75 4 3	31 38.2'N	30 57.9'E	3	141.10	0004	6.	9.	176G	24	0000	0	
CHN	119	2	0124	0000	8	75 4 5	33 46.1'N	32 42.1'E	9	141.32	0005	917.	917.	1.5K	12	0000	0	
CHN	119	2	0181	0000	8	75 410	32 1.8'N	31 24.0'E	9	141.21	0008	97.	105.	025K	24	0000	0	
							MARSDEN SQUARE # 143											
CHN	7	3	0005	0000	7	59 524	37 32.0'N	11 10.0'E	4	143.71	0005	358.	358.	004K	21	0000	0	
CHN	7	3	0006	0000	7	59 524	37 32.0'N	11 10.0'E	4	143.71	0006	453.	453.	005K	21	0000	0	
CHN	7	3	0007	0000	7	59 525	37 32.0'N	11 10.0'E	4	143.71	0007	453.	453.	9.3K	21	0000	0	
CHN	7	3	0009	0000	7	59 526	36 11.0'N	15 29.5'E	4	143.65	0009	1136.	1136.	454G	21	0000	0	
CHN	7	3	0011	0000	7	59 526	36 10.9'N	15 32.0'E	4	143.65	0011	2104.	2104.	454G	21	0000	0	
CHN	7	4	0013	0000	7	59 6 8	37 39.0'N	16 37.5'E	4	143.76	0013	2296.	2296.	680G	21	0000	0	
CHN	61	2	0021	0000	8	66 8 9	36 13.5'N	13 24.6'E	6	143.63	0001	1268.	1268.	113G	21	0000	0	
							MARSDEN SQUARE # 146											
CHN	13	7	0008	0000	8	60 925	48 46.0'N	10 2.0'W	5	146.80	0008	334.	334.	113G	4	0000	0	
CHN	13	7	0009	0000	8	60 925	48 47.0'N	10 1.5'W	5	146.80	0009	814.	841.	029K	4	0000	0	

********** STATION DATA RETRIEVAL ********** PAGE 16
********** DATE: 17:25 NOV 02,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 147											
AII	13	1	0075	0000	8	64 919	42 29.0'N	28 56.0'W	1	147.28	0001	1159.	1159.	031K	15	0000	0	
AII	32	3	0001	0000	8	67 7 8	42 59.5'C	27 42.2'W	9	147.27	0001	3041.	2778.	0000	15	0000	0	
AII	32	3	0002	0000	8	67 7 8	42 57.5'N	27 40.7'W	9	147.27	0002	2853.	2532.	0000	15	0000	0	
AII	32	3	0003	0000	8	67 7 9	43 1.8'N	28 13.5'W	9	147.38	0003	1465.	1315.	0000	15	0000	0	
AII	32	3	0004	0000	8	67 7 9	43 3.2'N	28 15.2'W	9	147.38	0004	1353.	1129.	0000	15	0000	0	
AII	32	3	0005	0000	8	67 710	43 6.4'N	28 31.0'W	9	147.38	0005	1483.	1371.	0000	15	0000	0	
AII	32	3	0006	0000	8	67 710	43 7.4'N	28 25.6'W	9	147.38	0006	2344.	1689.	0000	15	0000	0	
AII	32	3	0007	0000	8	67 711	43 11.4'N	28 58.7'W	9	147.38	0007	3193.	2532.	0000	15	0000	0	
AII	32	3	0008	0000	8	67 711	43 12.6'N	28 56.0'W	9	147.38	0008	2532.	2250.	0000	16	0000	0	
AII	32	3	0009	0000	8	67 711	43 12.4'N	28 54.7'W	9	147.38	0009	1847.	1557.	0000	16	0000	0	
AII	32	3	0010	0000	8	67 711	43 13.5'N	29 9.6'W	9	147.39	0010	2268.	1913.	0000	16	0000	0	
AII	32	3	0011	0000	8	67 712	42 57.3'N	29 15.5'W	9	147.29	0011	2174.	1988.	0000	16	0000	0	
AII	32	3	0012	0000	8	67 712	42 57.6'N	29 12.1'W	9	147.29	0012	1820.	1440.	0000	16	0000	0	
AII	32	3	0013	0000	8	67 712	42 55.5'N	29 7.8'W	9	147.29	0013	1279.	1054.	0000	16	0000	0	
AII	32	3	0014	0000	8	67 713	42 59.5'N	29 16.6'W	9	147.29	0014	2910.	2703.	0000	16	0000	0	
AII	32	3	0015	0000	8	67 713	43 1.0'N	29 18.2'W	9	147.39	0015	2344.	2118.	0000	16	0000	0	
AII	32	3	0016	0000	8	67 714	43 14.8'N	29 21.3'W	9	147.39	0016	2778.	2325.	0000	15	0000	0	
AII	32	3	0017	0000	8	67 714	43 19.8'N	29 14.2'W	9	147.39	0017	1913.	1596.	0000	15	0000	0	
AII	59	8	0003	0000	8	7012 4	26 59.0'N	42 40.0'W	1	147.62	0003	3500.	3390.	0018	16	0000	0	
AII	59	8	0004	0000	8	7012 4	27 10.0'N	43 28.0'W	1	147.73	0004	3235.	2910.	0002	16	0000	0	
AII	59	8	0005	0000	8	7012 4	27 12.0'N	43 36.0'W	1	147.73	0005	3670.	2885.	0150	16	0000	0	
AII	59	8	0006	0000	8	7012 5	27 15.0'N	43 49.0'W	1	147.73	0006	2980.	2630.	0004	16	0000	0	
AII	59	8	0007	0000	8	7012 5	27 14.0'N	43 58.0'W	1	147.73	0007	2785.	2140.	0012	16	0000	0	
AII	59	8	0010	0000	8	7012 7	27 18.0'N	44 33.0'W	1	147.74	0010	2860.	2255.	0001	16	0000	0	
AII	59	8	0011	0000	8	7012 7	27 29.0'N	44 44.0'W	1	147.74	0011	2745.	2535.	500G	16	0000	0	
CHN	43	1	0104	0000	8	64 8 8	45 11.0'N	27 56.0'W	4	147.57	0037	2697.	2527.	048K	16	0000	0	
CHN	43	1	0107	0000	8	64 8 9	44 34.0'N	28 9.2'W	4	147.48	0038	3264.	3264.	3.3K	16	0000	0	
CHN	43	1	0112	0000	8	64 812	42 39.3'N	28 59.1'W	10	147.28	0040	1628.	1628.	095G	16	0000	0	
CHN	43	1	0113	0000	8	64 812	42 42.4'N	29 1.5'W	10	147.29	0041	1829.	1684.	024K	16	0000	0	
CHN	82	6	0029	0000	8	68 811	41 55.0'N	29 13.0'W	8	147.19	0001	3112.	3065.	227G	16	0000	0	
CHN	82	7	0034	0000	8	68 823	42 28.5'N	28 41.1'W	8	147.28	0002	1642.	1282.	011K	14	0000	0	
CHN	82	7	0035	0000	8	68 823	42 31.0'N	29 15.0'W	8	147.29	0003	2489.	2471.	5.9K	16	0000	0	
CHN	82	8	0048	0000	8	68 9 2	42 55.4'N	28 55.0'W	8	147.28	0006	1189.	1610.	050K	16	0000	0	
CHN	105	2	0001	0000	8	72 726	43 52.0'N	22 13.6'W	9	147.32	0001	4528.	4106.	0010	17	0000	0	
CHN	105	2	0003	0000	8	72 726	43 58.2'N	22 11.7'W	9	147.32	0003	3118.	2625.	0021	17	0000	0	
CHN	105	2	0005	0000	8	72 727	43 38.8'N	22 6.0'W	9	147.32	0005	4528.	3764.	0013	17	0000	0	
CHN	105	2	0006	0000	8	72 727	43 39.0'N	22 13.0'W	9	147.32	0006	3080.	2630.	0044	17	0000	0	
CHN	105	2	0007	0000	8	72 727	43 35.7'N	22 27.2'W	9	147.32	0007	1727.	1316.	0005	17	0000	0	
CHN	105	2	0008	0000	8	72 727	43 21.0'N	21 19.1'W	9	147.31	0008	4299.	3953.	0012	17	0000	0	
CHN	105	2	0009	0000	8	72 728	43 18.1'N	21 13.8'W	9	147.31	0009	4278.	3457.	0002	17	0000	0	
CHN	105	2	0010	0000	8	72 728	43 17.2'N	21 46.9'W	9	147.31	0010	2967.	2626.	0004	17	0000	0	
CHN	105	2	0011	0000	8	72 729	43 36.7'N	22 28.2'W	9	147.32	0011	1614.	1129.	0008	17	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 151											
ATL	260	1	0003	0000	7	601012	40 4.0'N	69 1.5'W	5	151.09	0003	760.	722.	3.8K	25	0000	0	
ATL	260	1	0004	0000	7	601012	40 3.6'N	69 2.0'W	5	151.09	0004	555.	333.	010K	25	0000	0	
							MARSDEN SQUARE # 180											
CHN	43	1	0086	0000	8	64 7 8	43 36.0'N	9 24.0'E	5	180.39	0032	946.	946.	012K	4	0000	0	
CHN	43	1	0088	0000	8	64 711	43 22.0'N	8 37.2'E	5	180.38	0033	2478.	2478.	3.1K	4	0000	0	
CHN	43	1	0093	0000	8	64 718	42 46.6'N	7 37.5'E	5	180.27	0035	2674.	2674.	794G	6	0000	0	
CHN	43	1	0094	0000	8	64 718	42 46.5'N	7 37.5'E	5	180.27	0036	2674.	2674.	075G	6	0000	0	
							MARSDEN SQUARE # 182											
CHN	13	2	0041	0000	7	60 725	57 35.2'N	13 32.0'W	5	182.73	0041	147.	147.	012K	13	0000	0	
CHN	13	2	0042	0000	7	60 725	57 35.2'N	13 32.0'W	1	182.73	0042	162.	162.	011K	13	0000	0	
							MARSDEN SQUARE # 183											
CHN	13	2	0007	0000	8	60 723	51 28.0'N	29 45.0'W	1	183.19	0007	1301.	1301.	040K	14	0000	0	
CHN	13	2	0040	0000	7	60 721	50 44.0'N	29 52.0'W	5	183.09	0040	3897.	3556.	5.7K	16	0000	0	
							MARSDEN SQUARE # 301											
AII	20	2	0011	0000	8	66 3 8	0 12.0'S	18 27.0'W	1	301.08	0011	7100.	5840.	0000	19	0000	0	
AII	20	2	0012	0000	8	66 3 9	0 11.0'S	18 26.0'W	1	301.08	0012	5400.	4235.	650G	19	0000	0	
AII	20	2	0017	0000	8	66 311	0 3.0'S	17 35.0'W	1	301.07	0017	5145.	4490.	0000	19	0000	0	
AII	20	2	0018	0000	8	66 311	0 5.5'S	17 36.0'W	1	301.07	0018	3870.	3650.	0000	19	0000	0	
AII	20	2	0020	0000	8	66 313	0 15.0'S	18 33.0'W	1	301.08	0020	7620.	5300.	0000	19	0000	0	
AII	42	5	0001	0000	8	68 610	4 8.0'S	12 7.0'W	1	301.42	0001	3061.	2871.	0134	19	0000	0	
AII	42	5	0002	0000	8	68 611	3 49.0'S	11 3.0'W	1	301.31	0002	3468.	3231.	0059	19	0000	0	
AII	60	6	0015	0000	8	71 624	0 40.0'S	18 18.0'W	9	301.08	0015	4512.	3500.	0128	19	0000	0	
AII	60	6	0017	0000	8	71 624	0 90.0'S	18 22.0'W	9	301.08	0017	6387.	5675.	0180	19	0000	0	
							MARSDEN SQUARE # 302											
AII	20	2	0021	0000	8	66 314	0 28.5'S	20 31.0'W	1	302.00	0021	5760.	5390.	0000	19	0000	0	
AII	20	2	0022	0000	8	66 314	0 40.0'S	20 28.5'W	1	302.00	0022	6600.	6600.	0000	19	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
								MARSDEN SQUARE # 302										
AII	20	2	0023	0000	8	66 315	0 43.6'S	20 25.0'W	1	302.00	0023	3843.	2815.	0000	19	0000	0	
CHN	35	2	0011	0000	8	63 3 9	1 27.0'S	29 14.0'W	1	302.19	0011	4353.	4353.	0000	15	0000	0	
								MARSDEN SQUARE # 303										
CHN	35	2	0003	0000	8	63 3 6	0 50.5'S	30 6.5'W	1	303.00	0003	4408.	4408.	0000	15	0000	0	
CHN	35	2	0004	0000	8	63 3 7	0 57.0'S	30 8.0'W	1	303.00	0004	4320.	4320.	0000	15	0000	0	
CHN	35	2	0012	0000	11	63 313	7 38.5'S	34 37.0'W	1	303.74	0012	28.	28.	0000	14	0000	0	
CHN	115	7	0151	0000	8	74 524	8 5.8'S	33 54.5'W	1	303.83	0011	2052.	1774.	103K	4	0000	0	
CHN	115	7	0154	0000	8	74 528	4 43.5'S	35 2.0'W	1	303.45	0014	1085.	905.	5.9K	4	0000	0	
CHN	115	8	0155	0000	7	74 6 3	3 19.0'S	37 34.0'W	1	303.37	0015	285.	344.	030G	4	0000	0	
CHN	115	8	0156	0000	8	74 6 3	3 20.3'S	37 22.8'W	1	303.37	0016	806.	284.	6.6K	4	0000	0	
CHN	115	8	0157	0000	8	74 6 3	3 20.4'S	37 27.7'W	1	303.37	0017	266.	272.	043K	4	0000	0	
								MARSDEN SQUARE # 322										
AII	93	12	0044	0000	8	76 919	5 20.6'S	131 54.4'E	2	322.51	0018	1551.	695.	500G	3	0000	0	
								MARSDEN SQUARE # 326										
CHN	100	6	0060	0000	8	71 531	4 .2'S	90 46.9'E	9	326.40	0005	4881.	3960.	011K	15	0000	0	
								MARSDEN SQUARE # 329										
CHN	43	1	0052	0000	8	64 517	7 36.3'S	60 12.3'E	1	329.70	0021	3286.	3286.	010G	13	0000	0	
								MARSDEN SQUARE # 330										
CHN	43	1	0011	0000	8	64 4 9	1 37.0'S	53 21.0'E	1	330.13	0005	4784.	4088.	006K	10	0000	0	
CHN	43	1	0017	0000	7	64 412	3 37.0'S	55 42.0'E	1	330.35	0001	2618.	2618.	3.8K	3	0000	0	
CHN	43	1	0018	0000	8	64 416	6 49.0'S	57 22.0'E	1	330.67	0007	2776.	2826.	025G	13	0000	0	
CHN	43	1	0020	0000	8	64 417	7 2.0'S	59 22.0'E	1	330.79	0008	3127.	2984.	004G	13	0000	0	
CHN	43	1	0060	0000	7	64 520	6 4.0'S	57 7.0'E	1	330.67	0004	1913.	1913.	007G	13	0000	0	
CHN	43	1	0061	0000	8	64 520	6 .0'S	57 5.0'E	1	330.67	0022	1763.	1763.	075G	13	0000	0	
CHN	43	1	0063	0000	8	64 521	5 14.0'S	55 19.5'E	1	330.55	0023	1497.	1497.	3.9K	13	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 355											
CHN	100	9	0081	0000	8	71 8 9	17 52.4'S	167 20.6'E	9	355.77	0014	4815.	4746.	044K	17	0000	0	
CHN	100	9	0086	0000	8	71 813	14 47.1'S	168 9.2'E	9	355.48	0015	2671.	2291.	045K	21	0000	0	
CHN	100	9	0090	0000	8	71 816	13 17.5'S	166 6.8'E	9	355.36	0016	7094.	6485.	5.9K	21	0000	0	
							MARSDEN SQUARE # 356											
CHN	100	8	0066	0000	8	71 723	10 43.8'S	152 8.4'E	9	356.02	0010	3271.	3215.	1.8K	21	0000	0	
							MARSDEN SQUARE # 359											
CHN	100	7	0061	0000	8	71 711	12 40.2'S	123 33.4'E	9	359.23	0006	127.	238.	3.9K	2	0000	0	
CHN	100	7	0064	0000	8	71 712	12 39.6'S	123 33.0'E	9	359.23	0009	239.	242.	012K	2	0000	0	
							MARSDEN SQUARE # 365											
CHN	43	1	0035	0000	8	64 510	14 34.0'S	60 21.0'E	1	365.40	0012	55.	55.	4.5K	13	0000	0	
CHN	43	1	0037	0000	8	64 511	13 35.0'S	61 12.0'E	1	365.31	0013	2131.	2131.	1.6K	13	0000	0	
CHN	43	1	0039	0000	8	64 512	13 22.5'S	60 57.0'E	1	365.30	0014	1455.	1455.	340G	13	0000	0	
CHN	43	1	0044	0000	8	64 514	10 50.5'S	60 8.8'E	1	365.00	0016	1320.	1320.	680G	13	0000	0	
							MARSDEN SQUARE # 366											
CHN	43	1	0026	0000	8	64 424	17 22.5'S	59 10.0'E	1	366.79	0011	830.	792.	454G	13	0000	0	
							MARSDEN SQUARE # 400											
AII	93	6	0011	0000	8	76 317	24 58.8'S	70 .7'E	9	400.40	0010	3512.	3522.	104K	16	0000	0	
AII	93	6	0012	0000	8	76 317	24 40.5'S	70 2.7'E	9	400.50	0011	3445.	3323.	043K	14	0000	0	
AII	93	6	0015	0000	8	76 328	25 46.8'S	70 11.0'E	9	400.50	0014	3521.	3097.	024K	16	0000	0	
							MARSDEN SQUARE # 401											
AII	93	6	0014	0000	8	76 328	25 42.6'S	69 33.5'E	9	401.59	0013	3609.	3256.	086K	14	0000	0	
AII	93	6	0018	0000	8	76 330	25 35.5'S	69 55.8'E	9	401.59	0016	3865.	3079.	040K	16	0000	0	

STATION DATA RETRIEVAL
DATE: 17:25 NOV 02,'81

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MAPS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 407											
AII	93	2	0017	0000	8	751210	29 32.8'S	3 5.7'E	9	407.93	0017	2787.	1850.	0072	15	0000	0	
AII	93	2	0019	0000	8	751212	26 28.7'S	6 15.3'E	9	407.66	0019	2450.	2400.	0033	15	0000	0	
AII	93	2	0020	0000	8	751213	24 43.2'S	6 34.2'E	9	407.46	0020	1800.	1190.	0035	15	0000	0	
AII	93	2	0021	0000	8	751214	25 26.0'S	6 42.2'E	9	407.56	0021	3160.	2625.	0004	15	0000	0	
							MARSDEN SQUARE # 408											
AII	93	2	0003	0000	8	7512 1	37 8.3'S	7 49.5'W	9	408.77	0003	2650.	1940.	0034	15	0000	0	
AII	93	2	0004	0000	8	7512 1	36 22.7'S	7 30.7'W	9	408.67	0004	2184.	1925.	0013	15	0000	0	
AII	93	2	0005	0000	8	7512 3	34 17.3'S	5 2.1'W	9	408.45	0005	3101.	3012.	0051	15	0000	0	
AII	93	2	0006	0000	8	7512 3	34 21.0'S	4 59.0'W	9	408.44	0006	2460.	2360.	0037	15	0000	0	
AII	93	2	0007	0000	8	7512 4	34 30.0'S	3 27.9'W	9	408.43	0007	2220.	2130.	0001	15	0000	0	
AII	93	2	0008	0000	8	7512 4	34 30.0'S	3 28.4'W	9	408.43	0008	1984.	1488.	0058	15	0000	0	
AII	93	2	0009	0000	8	7512 5	34 10.6'S	1 29.7'W	9	408.41	0009	1925.	1765.	0022	15	0000	0	
AII	93	2	0010	0000	8	7512 5	34 20.5'S	1 34.6'W	9	408.41	0010	2284.	1935.	0056	15	0000	0	
AII	93	2	0011	0000	8	7512 6	32 58.2'S	0 1.1'W	9	408.41	0011	3109.	2367.	0088	15	0000	0	
AII	93	2	0012	0000	8	7512 7	32 39.9'S	1 35.3'E	9	408.20	0012	3090.	2827.	0001	15	0000	0	
							MARSDEN SQUARE # 409											
AII	93	2	0001	0000	8	751128	34 59.0'S	16 8.0'W	9	409.46	0001	3576.	2283.	0015	15	0000	0	
AII	107	7	0009	0000	8	80 429	39 41.8'S	16 3.2'W	9	409.96	0009	2314.	2633.	0101	16	0000	0	
AII	107	7	0010	0000	8	80 430	38 52.9'S	16 14.4'W	9	409.86	0010	2384.	1954.	0020	16	0000	0	
AII	107	7	0011	0000	8	80 430	38 10.9'S	16 33.7'W	9	409.86	0011	2490.	2209.	0016	16	0000	0	
AII	107	7	0013	0000	8	80 5 2	37 50.0'S	17 8.5'W	9	409.77	0013	2723.	1885.	0013	16	0000	0	
AII	107	7	0014	0000	8	80 5 2	37 11.2'S	17 30.9'W	9	409.77	0014	2454.	2224.	0350	16	0000	0	
AII	107	7	0015	0000	8	80 5 3	36 33.5'S	17 35.2'W	9	409.67	0015	2683.	2434.	0237	16	0000	0	
AII	107	7	0016	0000	8	80 5 4	36 4.4'S	18 5.0'W	9	409.68	0016	2623.	2284.	0025	16	0000	0	
AII	107	7	0017	0000	8	80 5 5	35 16.7'S	15 44.1'W	9	409.55	0017	3638.	3135.	0300	16	0000	0	
AII	107	7	0018	0000	8	80 5 5	34 33.2'S	15 8.8'W	9	409.45	0018	2824.	2464.	0400	16	0000	0	
AII	107	7	0020	0000	8	80 5 6	33 42.8'S	14 15.0'W	9	409.34	0020	2283.	1489.	0031	16	0000	0	
AII	107	7	0023	0000	8	80 5 8	32 40.6'S	14 1.1'W	9	409.24	0023	2634.	2087.	0007	16	0000	0	
AII	107	7	0025	0000	8	80 5 9	31 50.0'S	13 34.7'W	9	409.13	0025	2984.	2364.	0044	16	0000	0	
							MARSDEN SQUARE # 411											
CHN	115	6	0146	0000	8	74 511	30 12.8'S	39 21.5'W	1	411.09	0009	4789.	4139.	133K	13	0000	0	

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE- VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS- DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO- GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
								MARSDEN SQUARE # 443										
AII	93	2	0013	0000	8	7512 7	32 39.1'S	1 36.0'E	9	443.21	0013	2307.	2215.	0014	15	0000	0	
AII	93	2	0014	0000	8	7512 8	31 59.5'S	2 24.2'E	9	443.12	0014	2304.	1587.	0175	15	0000	0	
								MARSDEN SQUARE # 445										
AII	107	7	0002	0000	8	80 422	46 12.7'S	14 4.4'W	9	445.64	0002	2485.	2913.	0170	16	0000	0	
AII	107	7	0004	0000	8	80 426	42 54.9'S	16 22.2'W	9	445.26	0004	3085.	2519.	0183	16	0000	0	
AII	107	7	0006	0000	8	80 427	41 14.9'S	16 36.2'W	9	445.16	0006	2614.	2175.	0114	16	0000	0	
AII	107	7	0007	0000	8	80 428	40 26.3'S	16 45.0'W	9	445.06	0007	2627.	2597.	0390	16	0000	0	
								MARSDEN SQUARE # 480										
AII	107	6	0031	0000	8	80 320	54 41.4'S	0 2.3'W	12	480.40	0031	829.	884.	0046	14	0000	0	
AII	107	6	0032	0000	8	80 320	54 39.7'S	0 .8'W	12	480.40	0032	891.	900.	0010	14	0000	0	
AII	107	6	0033	0000	8	80 321	54 39.0'S	0 4.1'W	12	480.40	0033	937.	987.	0050	14	0000	0	
AII	107	6	0034	0000	8	80 321	54 38.1'S	0 7.6'W	12	480.40	0034	1060.	1082.	0017	14	0000	0	
CHN	115	4	0037	0000	8	74 225	54 35.9'S	0 58.1'W	9	480.40	0001	2522.	2328.	093K	14	0000	0	
CHN	115	4	0038	0000	8	74 227	55 20.2'S	1 42.6'W	9	480.51	0003	3509.	3419.	9.5K	14	0000	0	
CHN	115	4	0042	0000	8	74 3 4	55 22.5'S	2 1.9'W	9	480.52	0004	2540.	2461.	1.8K	15	0000	0	
CHN	115	4	0044	0000	8	74 3 6	54 40.2'S	0 1.2'W	9	480.40	0005	861.	818.	091K	16	0000	0	
ISO	1	1	0045	0000	8	761120	55 37.5'S	3 48.9'W	9	480.53	0045	3600.	3050.	0100	19	0000	0	
ISO	1	1	0047	0000	8	761121	55 36.2'S	3 43.7'W	9	480.53	0047	2150.	1450.	0035	19	0000	0	
ISO	1	1	0048	0000	8	761121	55 41.2'S	3 49.1'W	9	480.53	0048	4390.	3700.	00.1	19	0000	0	
								MARSDEN SQUARE # 484										
AII	107	6	0001	0000	8	80 3 9	56 10.2'S	41 48.0'W	12	484.61	0001	3809.	3402.	0068	12	0000	0	
AII	107	6	0002	0000	8	80 3 9	56 7.3'S	41 41.1'W	12	484.61	0002	2438.	2959.	01.4	12	0000	0	
								MARSDEN SQUARE # 514										
ISO	1	1	0075	0000	8	7612 9	52 54.0'S	11 23.3'E	9	514.21	0075	1940.	1760.	0010	19	0000	0	
								MARSDEN SQUARE # 515										
AII	107	6	0035	0000	8	80 321	54 43.4'S	0 48.2'E	12	515.40	0035	584.	651.	0048	14	0000	0	

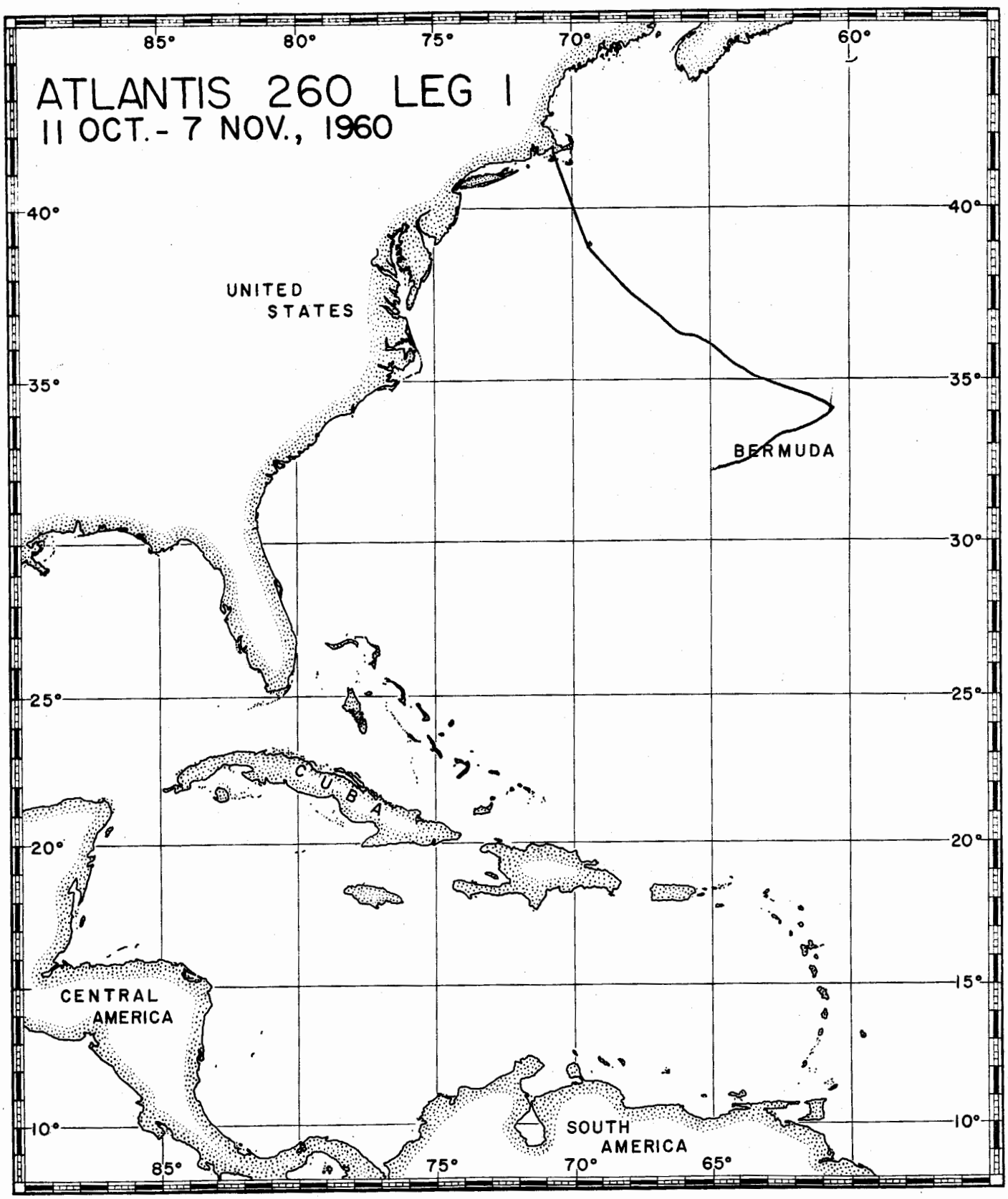
SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
							MARSDEN SQUARE # 515											
AII	107	6	0036	0000	8	80 321	54 42.9'S	0 49.4'E	12	515.40	0036	745.	941.	0028	14	0000	0	
AII	107	6	0037	0000	8	80 322	54 44.2'S	0 50.3'E	12	515.40	0037	1196.	789.	0009	14	0000	0	
AII	107	6	0039	0000	8	80 322	54 26.5'S	1 37.3'E	12	515.41	0039	5022.	4436.	0025	19	0000	0	
AII	107	6	0040	0000	8	80 322	54 25.4'S	1 34.2'E	12	515.41	0040	3701.	2724.	0068	19	0000	0	
AII	107	6	0041	0000	8	80 322	54 25.1'S	1 28.4'E	12	515.41	0041	1907.	1983.	01.4	19	0000	0	
AII	107	6	0043	0000	8	80 323	54 24.4'S	0 19.8'E	12	515.41	0043	2095.	2272.	00.4	19	0000	0	
AII	107	6	0046	0000	8	80 323	53 58.9'S	3 35.6'E	12	515.33	0046	2176.	2252.	00.2	16	0000	0	
AII	107	6	0047	0000	8	80 324	54 .7'S	3 33.1'E	12	515.43	0047	2069.	1895.	0043	16	0000	0	
AII	107	6	0048	0000	8	80 324	54 1.8'S	3 31.3'E	12	515.43	0048	1901.	2178.	0016	16	0000	0	
AII	107	6	0051	0000	8	80 325	54 11.9'S	4 35.6'E	12	515.44	0051	3142.	2536.	0006	19	0000	0	
AII	107	6	0052	0000	8	80 325	54 25.5'S	4 43.9'E	12	515.44	0052	973.	1001.	0064	12	0000	0	
AII	107	6	0053	0000	8	80 325	54 13.5'S	5 10.5'E	12	515.45	0053	2810.	2364.	0018	16	0000	0	
AII	107	6	0055	0000	8	80 326	54 17.6'S	5 18.5'E	12	515.45	0055	2355.	2010.	0033	16	0000	0	
AII	107	6	0056	0000	8	80 326	54 23.8'S	5 8.2'E	12	515.45	0056	3664.	3122.	0036	16	0000	0	
AII	107	6	0057	0000	8	80 326	54 2.7'S	7 13.4'E	12	515.47	0057	3648.	1920.	0034	16	0000	0	
AII	107	6	0058	0000	8	80 326	53 58.8'S	7 20.4'E	12	515.37	0058	1507.	1316.	0071	12	0000	0	
AII	107	6	0059	0000	8	80 327	54 1.1'S	7 14.1'E	12	515.47	0059	3501.	2520.	0011	16	0000	0	
AII	107	6	0060	0000	8	80 327	53 25.7'S	9 9.1'E	12	515.39	0060	5899.	4207.	0070	19	0000	0	
AII	107	6	0061	0000	8	80 328	53 25.1'S	9 11.9'E	12	515.39	0061	5073.	4063.	0060	19	0000	0	
AII	107	6	0063	0000	8	80 328	53 23.3'S	9 20.3'E	12	515.39	0063	4051.	4180.	0012	19	0000	0	
AII	107	6	0064	0000	8	80 328	53 19.2'S	9 8.4'E	12	515.39	0064	5024.	3874.	0003	19	0000	0	
AII	107	6	0065	0000	8	80 328	53 14.3'S	9 11.6'E	12	515.39	0065	4729.	2692.	0022	19	0000	0	
AII	107	6	0066	0000	8	80 328	53 8.8'S	9 11.5'E	12	515.39	0066	2619.	2214.	0068	19	0000	0	
AII	107	6	0067	0000	8	80 329	53 14.4'S	9 27.6'E	12	515.39	0067	5311.	4025.	0024	19	0000	0	
CHN	115	4	0050	0000	8	74 3 8	54 13.7'S	4 3.1'E	9	515.44	0008	1806.	1938.	9.2K	19	0000	0	
ISO	1	1	0056	0000	8	761130	54 5.5'S	6 17.1'E	9	515.46	0056	4390.	3650.	0045	19	0000	0	
ISO	1	1	0057	0000	8	7612 1	54 8.3'S	6 29.3'E	9	515.46	0057	3100.	2830.	0001	19	0000	0	
ISO	1	1	0058	0000	8	7612 1	54 4.3'S	6 23.9'E	9	515.46	0058	3580.	2960.	0112	19	0000	0	
ISO	1	1	0059	0000	8	7612 1	54 3.4'S	6 30.0'E	9	515.46	0059	2520.	2340.	0150	19	0000	0	
ISO	1	1	0060	0000	8	7612 1	54 2.7'S	6 29.2'E	9	515.46	0060	2780.	2500.	0159	19	0000	0	
ISO	1	1	0061	0000	8	7612 1	53 59.7'S	6 25.0'E	9	515.36	0061	4720.	4570.	0003	19	0000	0	
ISO	1	1	0062	0000	8	7612 2	53 54.2'S	6 20.5'E	9	515.36	0062	2835.	2300.	0054	19	0000	0	
ISO	1	1	0063	0000	8	7612 2	53 51.5'S	6 24.1'E	9	515.36	0063	3110.	2560.	0004	19	0000	0	

THERE WERE 717 ITEMS THAT MET YOUR REQUIREMENTS.

THANK YOU FOR USING PROGRAM MUDDIE.

STOP THAT IS ALL FOR NOW

DESCRIPTIONS OF W.H.O.I. ROCK DREDGE SAMPLES, VOLUME I.


ATLANTIS 260 LEG 1
11 OCT.- 7 NOV., 1960
85°
80°
75°
70°
60°
40°
35°
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15°
10°
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA
85°
75°
70°
65°

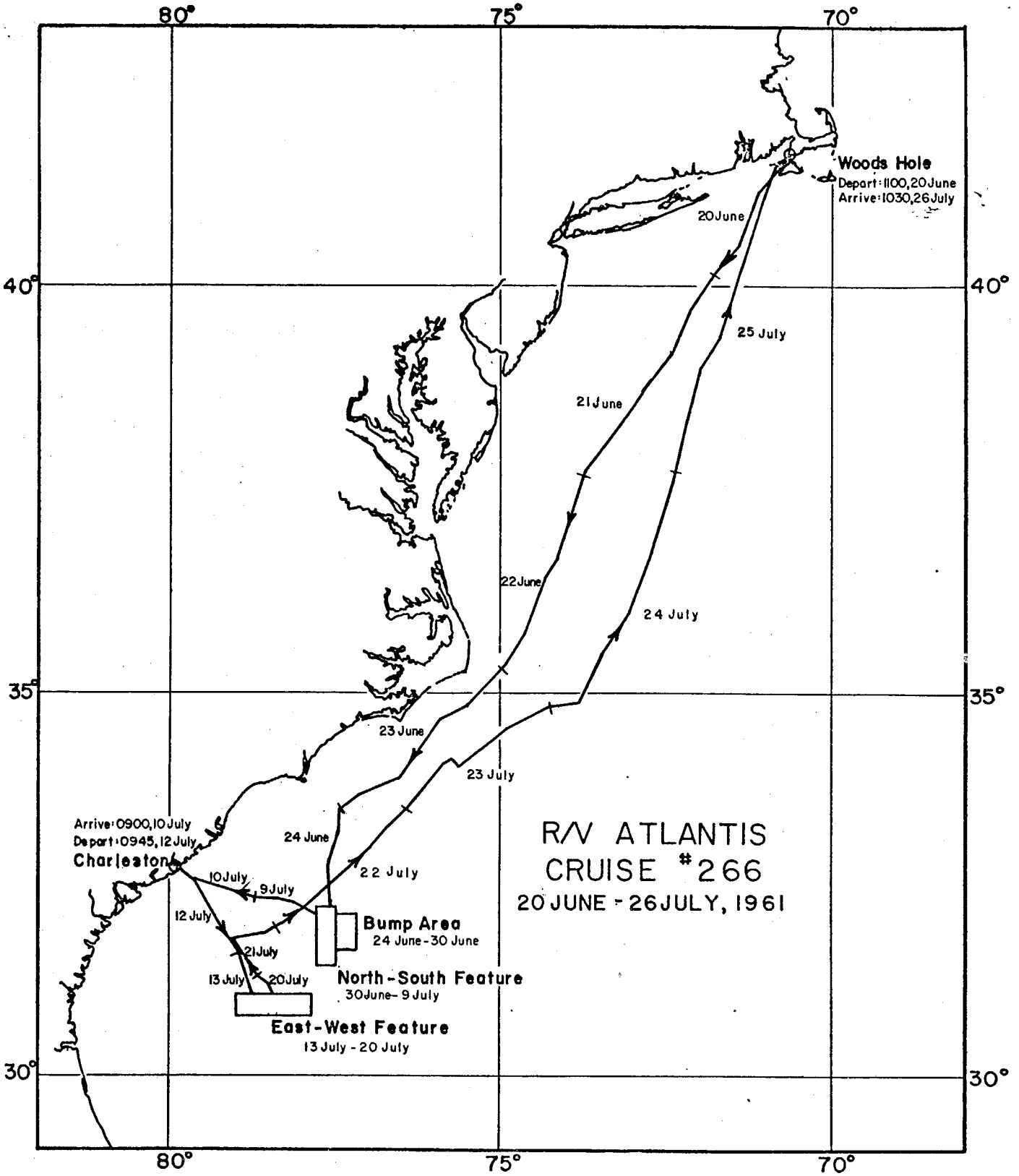
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
ATL	260	1	0003	0000	7	601012	40 4.0'N	69 1.5'W	5	151.09	0003	760.	722.	3.8K	25	0000	0	
ATL	260	1	0004	0000	7	601012	40 3.6'N	69 2.0'W	5	151.09	0004	555.	333.	010K	25	0000	0	
ATL	260	1	0007	0000	7	601018	33 34.0'N	62 26.0'W	5	115.32	0007	1542.	1497.	113G	12	0000	0	
ATL	260	1	0008	0000	7	601018	33 36.0'N	62 25.5'W	5	115.32	0008	1422.	1422.	8.9K	12	0000	0	
ATL	260	1	0009	0000	7	601020	33 36.5'N	62 24.5'W	5	115.32	0009	2553.	2630.	1.5K	12	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 260 STATION _____ DREDGE see below DESCRIBED BY FARMER DATE Jan. 197

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 3	Dredge 3PD										
	unfoss. lutite	3.9K		Finely burrowed, unfossiliferous, lithified lumps of lutite							
Sta. 4	Dredge 4PD										
	claystone	10K		Numerous small & large fragments of claystone, some burrowed							~60% unfoss. ~40% calcareous
Sta 7	Dredge 7PD										
	coral	50G		Mn coated fragments							
	Glacial erratics	63G		Mn coated chips - red shale and granite							
Sta 8	Dredge 8PD										
	Coral	8.3K		Small, delicate, Mn coated							
	Mn nodules	0.5K									
Sta 9	Dredge 9PD										
	Coral	1.5K		Small, delicate, Mn coated							


80°
75°
70°
40°
35°
30°
Woods Hole
Depart: 1100, 20 June
Arrive: 1030, 26 July
20 June
21 June
22 June
23 June
24 June
25 July
24 July
23 July
22 July
Arrive: 0900, 10 July
Depart: 0945, 12 July
Charleston
10 July
9 July
12 July
21 July
13 July
20 July
Bump Area
24 June - 30 June
North - South Feature
30 June - 9 July
East - West Feature
13 July - 20 July
R/V ATLANTIS
CRUISE # 266
20 JUNE - 26 JULY, 1961

********** STATION DATA RETRIEVAL **********
********** DATE: 08:52 SEP 21,'81 **********

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
ATL	266	1	0002	0000	8	61 625	31 58.0'N	77 18.5'W	5	116.17	0002	843.	843.	020K	7	0000	0	
ATL	266	1	0003	0000	7	61 626	31 56.5'N	77 26.0'W	5	116.17	0003	739.	739.	012K	7	0000	0	
ATL	266	1	0004	0000	7	61 626	31 56.0'N	77 26.0'W	5	116.17	0004	815.	815.	012K	7	0000	0	
ATL	266	1	0005	0000	7	61 627	31 53.0'N	77 27.2'W	5	116.17	0005	815.	815.	020K	7	0000	0	
ATL	266	1	0006	0000	7	61 627	31 54.8'N	77 25.0'W	5	116.17	0006	739.	739.	014K	7	0000	0	
ATL	266	1	0007	0000	7	61 628	31 53.0'N	77 22.5'W	5	116.17	0007	739.	834.	010K	7	0000	0	
ATL	266	1	0008	0000	7	61 628	31 53.0'N	77 21.0'W	5	116.17	0008	834.	834.	7.9K	7	0000	0	
ATL	266	1	0012	0000	7	61 630	31 49.0'N	76 49.0'W	5	116.16	0012	1320.	1320.	1.2K	7	0000	0	
ATL	266	1	0016	0000	7	61 7 1	31 51.0'N	77 28.0'W	5	116.17	0016	689.	689.	015K	7	0000	0	
ATL	266	1	0017	0000	7	61 7 1	31 52.0'N	77 28.0'W	5	116.17	0017	676.	676.	017K	7	0000	0	
ATL	266	1	0018	0000	7	61 7 2	32 .5'N	77 35.0'W	5	116.27	0018	677.	677.	454G	7	0000	0	
ATL	266	1	0019	0000	7	61 7 2	32 1.0'N	77 34.0'W	5	116.27	0019	684.	684.	567G	7	0000	0	
ATL	266	1	0020	0000	8	61 7 3	31 49.0'N	77 38.0'W	5	116.17	0020	692.	692.	567G	7	0000	0	
ATL	266	1	0021	0000	8	61 7 3	31 50.5'N	77 37.0'W	5	116.17	0021	696.	696.	016K	7	0000	0	
ATL	266	1	0022	0000	8	61 7 3	31 49.5'N	77 37.0'W	5	116.17	0022	705.	705.	018K	7	0000	0	
ATL	266	1	0025	0000	7	61 7 6	31 48.0'N	77 34.0'W	5	116.17	0025	668.	668.	1.4K	7	0000	0	
ATL	266	1	0026	0000	7	61 7 6	31 49.5'N	77 34.5'W	5	116.17	0026	865.	865.	010K	7	0000	0	
ATL	266	1	0040	0000	8	61 713	30 53.0'N	78 47.0'W	5	116.08	0040	836.	836.	026K	7	0000	0	
ATL	266	1	0041	0000	8	61 715	30 59.0'N	78 14.0'W	5	116.08	0041	903.	903.	9.1K	7	0000	0	
ATL	266	1	0042	0000	7	61 715	30 59.0'N	78 13.0'W	5	116.08	0042	834.	834.	013K	7	0000	0	
ATL	266	1	0043	0000	7	61 717	30 57.0'N	78 21.0'W	5	116.08	0043	954.	954.	9.1K	7	0000	0	
ATL	266	1	0045	0000	8	61 718	30 58.0'N	78 30.0'W	5	116.08	0045	833.	833.	044K	7	0000	0	
ATL	266	1	0046	0000	8	61 718	30 58.5'N	78 30.0'W	5	116.08	0046	847.	847.	4.8K	7	0000	0	
ATL	266	1	0047	0000	8	61 719	30 55.0'N	78 39.0'W	5	116.08	0047	842.	842.	6.6K	7	0000	0	
ATL	266	1	0049	0000	7	61 719	30 54.0'N	78 41.0'W	5	116.08	0049	845.	845.	4.3K	7	0000	0	
ATL	266	1	0050	0000	7	61 721	31 52.5'N	79 10.0'W	5	116.19	0050	489.	489.	3.9K	7	0000	0	
ATL	266	1	0051	0000	7	61 723	34 1.2'N	75 50.5'W	5	116.45	0051	659.	659.	001K	7	0000	0	
ATL	266	1	0052	0000	7	61 723	34 2.0'N	75 40.0'W	5	116.45	0052	1993.	1993.	1.3K	7	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 266 STATION _____ DREDGE See below DESCRIBED BY FARMER DATE January 197

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 2	Dredge 2										
	Coral	9.5K									
	Mn nodules	9.1K									
	Calc sand	1.5K		Calc sand & shell hash							
Sta 3	Dredge 3PD										
	Coral	6.1K		Generally small, fairly clean fragments							
	Lutite	5.9K		Gray-green lutite with forams common							
	Nodules	0.1K		Mn & phosphorite (small)							
Sta 4	Dredge 4PD										
	Coral	12K		Small broken fragments							
Sta 5	Dredge 5PD										
	Coral	5.5K		Small broken fragments							
	Calc ooze	5.0K		Consolidated lumps (large) of coarse calc ooze							
	Calc ooze	5.0K		Unconsolidated, coarse, calc ooze/sand							
	Phosphorite chunks	4.0K									

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 266 STATION _____ DREDGE see below DESCRIBED BY FARMER DATE January 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 6	Dredge 6PD										
	Coral	9.5K		Broken fragments							
	Globigerina ooze	1.4K									
	Calc lutite	2.9K		Lutite with forams & pteropods common, also corals							
Sta 7	Dredge 7PD										
	Coral	10K		Broken fragments, some sea stars							
Sta 8	Dredge 8PD										
	Coral	3.4K		Fragments							
	Shell hash	1.1K		and some coral							
	Foram sand	2.4K									
Sta 12	Dredge 12PD										
	Pteropod sand	113G									
	Calc ooze	1.1K		Lutite							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 266 STATION _____ DREDGE See below DESCRIBED BY FARMER DATE January 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 16	Dredge 16 PD										
	Foram sand	11K									
	Limestone	3.6K		Consolidated foram/pteropod sandstone							
Sta 17	Dredge 17PD										
	Coral	14.K		Broken coral & shell hash							
	Calc lutite	2.9K		Consolidated lumps of calcareous lutite							
Sta 18	Dredge 18PD										
	Coral	450G		Coral debris							
Sta 19	Dredge 19PD										
	Coral	560G		Coral debris							
Sta 20	Dredge 20										
	Coral	560G		Coral debris							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 266 STATION _____ DREDGE See below DESCRIBED BY FARMER DATE January 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 21	Dredge 21										
	Limestone	16K		Cemented calcareous sandstone of forams and pteropods (with few sponges)							
Sta 22	Dredge 22										
	Coral	9K		Coral debris							
	Limestone	9K		Cemented calcareous sand							
Sta. 25	Dredge 25PD										
	Calc sand	1.4K		Foram/pteropod sand with broken coral fragments							
Sta 26	Dredge 26PD										
	Coral	8.6K		Coral debris							
	Foram sand	2K									
Sta 40	Dredge 40										
	Limestone	4.8K		Foram sandstone							
	Pteropod sand	1.6K		Semi-indurated pteropod sand							
	Mn nodules	19.5K									

WHOI ROCK SAMPLE DESCRIPTION

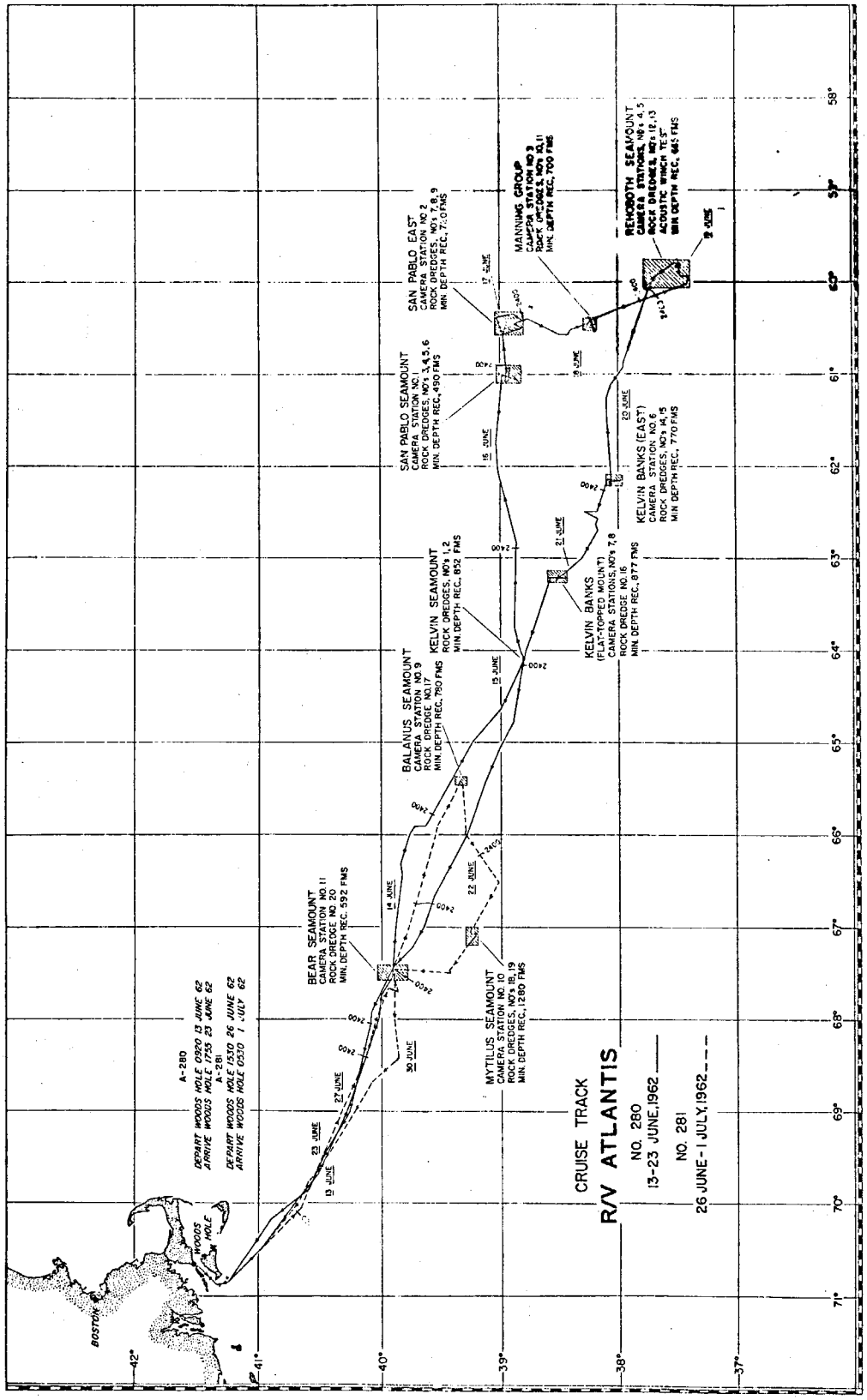
CRUISE ATLANTIS 266 STATION _____ DREDGE See below DESCRIBED BY FARMER DATE January 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 41	Dredge 41										
	Mn nodules & pavement	9K									
Sta 42	Dredge 42PD										
	Foram sand	5.4K		Loose foram sand with pteropods & small phosphorite nodules							
	Mn	5.2K		Slabs and nodules							
	Limestone	2.0K		Indurated foram sand & coral							
Sta. 43	Dredge 43PD										
	Limestone	9.1K		Indurated foram/pteropod sand & loose oozes of same material							
Sta 45	Dredge 45										
	Mn pavement	34K									
	Mn pavement	10K		Limestone center with thick Mn accumulation							
Sta 46	Dredge 46										
	Mn slabs	1.7K									
	Limestone	3.2K		Cemented foram sandstones (with minor corals), burrowed & weathered							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 266 STATION _____ DREDGE See below DESCRIBED BY FARMER DATE January 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 47	Dredge 47										
	Limestone	6.6K		Coral/foram sandstone							
Sta 49	Dredge 49PD										
	Foram sand	1.6K									
	Calc sand	2.7K		Pteropods, forams & coral hash (with a few Mn fragments mixed in)							
Sta 50	Dredge 50PD										
	Foram sand	3.4K		Foram/pteropod sand with sand size Mn common							
Sta 51	Dredge 51PD										
	calc lutite	113G		Pteropod shell hash & other calc remains in lutite							
Sta 52	Dredge 52PD										
	Pteropod sand	113G									
	Calc lutite	1.1K		Blue-green somewhat calcareous lutite							


CRUISE TRACK
R/V ATLANTIS
NO. 280
13-23 JUNE, 1962
NO. 281
26 JUNE-1 JULY, 1962
A-280
DEPART WOODS HOLE 0320 13 JUNE 62
ARRIVE WOODS HOLE 1735 23 JUNE 62
A-281
DEPART WOODS HOLE 1530 26 JUNE 62
ARRIVE WOODS HOLE 0530 1 JULY 62
BOSTON
WOODS HOLE
BEAR SEAMOUNT
CAMERA STATION NO. 11
ROCK DREDGE NO. 20
MIN. DEPTH REC. 592 FMS
BALANUS SEAMOUNT
CAMERA STATION NO. 9
ROCK DREDGE NO. 17
MIN. DEPTH REC. 750 FMS
MYTILUS SEAMOUNT
CAMERA STATION NO. 10
ROCK DREDGES, NOS. 18, 19
MIN. DEPTH REC., 1280 FMS
KELVIN SEAMOUNT
ROCK DREDGES, NOS. 1, 2
MIN. DEPTH REC., 852 FMS
KELVIN BANKS
(FLAT-TOPPED MOUNT)
CAMERA STATIONS, NOS. 7, 8
ROCK DREDGE NO. 16
MIN. DEPTH REC., 877 FMS
SAN PABLO SEAMOUNT
CAMERA STATION NO. 3
ROCK DREDGES, NOS. 3, 4, 5, 6
MIN. DEPTH REC., 490 FMS
SAN PABLO EAST
CAMERA STATION NO. 2
ROCK DREDGES, NOS. 7, 8, 9
MIN. DEPTH REC., 720 FMS
MANNING GROUP
CAMERA STATION NO. 3
ROCK DREDGES, NOS. 10, 11
MIN. DEPTH REC., 700 FMS
KELVIN BANKS (EAST)
CAMERA STATION NO. 6
ROCK DREDGES, NOS. 14, 15
MIN. DEPTH REC., 770 FMS
REHOBOTH SEAMOUNT
CAMERA STATIONS, NOS. 4, 5
ROCK DREDGES, NOS. 12, 13
ACOUSTIC WINCH TEST
MIN. DEPTH REC., 665 FMS
13 JUNE
14 JUNE
15 JUNE
17 JUNE
19 JUNE
20 JUNE
21 JUNE
22 JUNE
23 JUNE
27 JUNE
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********** STATION DATA RETRIEVAL **********
********** DATE: 08:52 SEP 21,'81 **********

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
ATL	280	1	0003	0000	7	62 616	38 54.0'N	61 1.0'W	5	115.81	0003	1298.	1241.	2.3K	12	0000	0	
ATL	280	1	0004	0000	7	62 616	38 57.0'N	60 58.0'W	5	115.80	0004	1150.	1114.	227G	12	0000	0	
ATL	280	1	0005	0000	7	62 616	38 55.0'N	60 58.0'W	5	115.80	0005	1041.	1034.	010K	12	0000	0	
ATL	280	1	0006	0000	7	62 616	38 58.0'N	60 57.0'W	5	115.80	0006	935.	944.	009K	12	0000	0	
ATL	280	1	0009	0000	7	62 617	38 52.0'N	60 27.0'W	5	115.80	0009	1879.	1879.	227G	12	0000	0	
ATL	280	1	0010	0000	7	62 618	38 13.0'N	60 26.0'W	5	115.80	0010	1785.	1785.	012K	12	0000	0	
ATL	280	1	0012	0000	7	62 619	37 29.0'N	59 47.0'W	5	114.79	0012	1298.	1279.	4.5K	12	0000	0	
ATL	280	1	0013	0000	7	62 619	37 33.0'N	59 48.0'W	5	114.79	0013	1295.	1295.	680G	12	0000	0	
ATL	280	1	0014	0000	7	62 620	38 3.0'N	62 9.0'W	5	115.82	0014	1954.	1954.	011K	12	0000	0	
ATL	280	1	0015	0000	7	62 620	38 4.0'N	62 8.0'W	5	115.82	0015	1474.	1474.	2.3K	12	0000	0	
ATL	280	1	0016	0000	7	62 621	38 30.0'N	63 13.0'W	5	115.83	0016	1692.	1708.	011K	12	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 280 STATION _____ DREDGE See below DESCRIBED BY FARMER DATE January 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 3	Dredge 3PD										
	Coral	1.4K		Heavily Mn coated broken corals							
	Mn gravel	0.9K		Mn coated limestone chips & pebbles							
Sta 4	Dredge 4PD										
	Mn gravel	227G		Mn (& perhaps phosphorite) coated gravel							
Sta 5	Dredge 5PD										
	Coral	10K		Mn coated coral, with some forams, pteropods, gravel & sand							
Sta 6	Dredge 6PD										
	Coral	8.6K		Mn coated coral fragments, a few small Mn coated pebbles							
	Calc ooze	454G		Foram rich sand with small corals							
Sta 9	Dredge 9PD										
	Coral	227G		Mn coated coral							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 280 STATION _____ DREDGE See below DESCRIBED BY FARMER DATE January 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 10	Dredge 10PD										
	Coral	12K		Mn coated coral							
Sta 12	Dredge 12PD										
	Coral	4.5K		Mn coated coral (& some pebbles)							
Sta 13	Dredge 13PD										
	Coral	680G		Mn coated coral (& a little gravel)							
Sta 14	Dredge 14PD										
	Coral	2.9K		Coral fragments							
	Coral	6.6K		Lumps of coral fragments mostly covered by indurated foram ooze							
	Calc ooze	1.8K		Calcareous mud and sand							
	Gravel	113G		Mn coated gravel							
Sta 15	Dredge 15PD										
	Gravel	2.3K		Mn coated gravel (& a few corals)							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 280 STATION _____ DREDGE 16PD DESCRIBED BY FARMER DATE January 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 16	Dredge 16PD										
	Diorite erratic	3.6K		Mn coated diorite (glacial erratic)							
	Gravel	7.3K		Mn coated, rounded gravel							

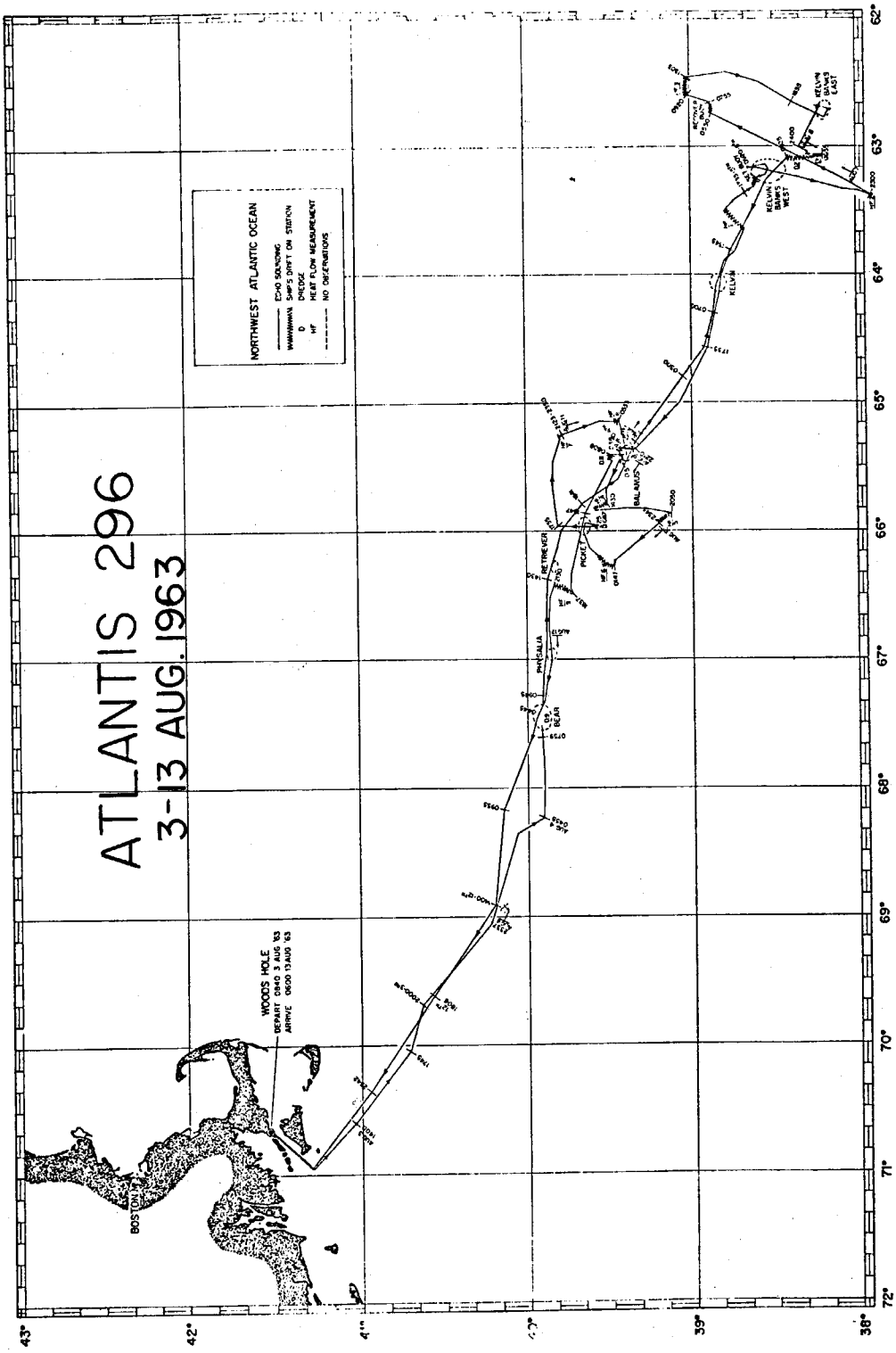
********** STATION DATA RETRIEVAL **********
********** DATE: 08:52 SEP 21,'81 **********

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
ATL	281	1	0017	0000	8	62 628	39 25.0'N	65 24.0'W	5	115.95	0017	1463.	0.	017K	12	0000	0	
ATL	281	1	0019	0000	8	62 629	39 23.0'N	67 11.0'W	5	115.97	0019	0.	0.	907G	12	0000	0	
ATL	281	1	0020	0000	8	62 630	39 52.5'N	67 28.0'W	5	115.97	0020	1401.	0.	6.6K	12	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 281 STATION _____ DREDGE See below DESCRIBED BY FARMER DATE January 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Sta 17	Dredge 17										
	Foram sand	15K		Foram sand with some pebbles							
	Gravel	1.8K		Angular & rounded gravel, slightly Mn coated						(cut sections show many to be limestone and limestone breccias)	
	Limestone	227G		breccia							
Sta 19	Dredge 19										
	Mn nodules	700G									
	Gravel	225G		Rounded gravel with slight Mn coating							
Sta 20	Dredge 20										
	Calc ooze	2K		Foram sand with lutite matrix							
	Loose conglomerate	3.4K		Coarse sand, gravel and pebbles							
	Limestone	1.1K		Cut sections of limestone and limestone breccias							


ATLANTIS 296
3-13 AUG. 1963
NORTHWEST ATLANTIC OCEAN
ECHO SOUNDING
WAAAHHHH SHIPS DRIFT ON STATION
D DREDGE
HF HEAT FLOW MEASUREMENT
NO OBSERVATIONS
WOODS HOLE
DEPART 0840 3 AUG 63
ARRIVE 0600 13 AUG 63
BOSTON
KELVIN BANKS EAST
KELVIN BANKS WEST
KELVIN
BALANUS
PICKEREL
RETRIEVER
PHOSALIA
DR. BEAR
43°
42°
41°
40°
39°
38°
72°
71°
70°
69°
68°
67°
66°
65°
64°
63°
62°

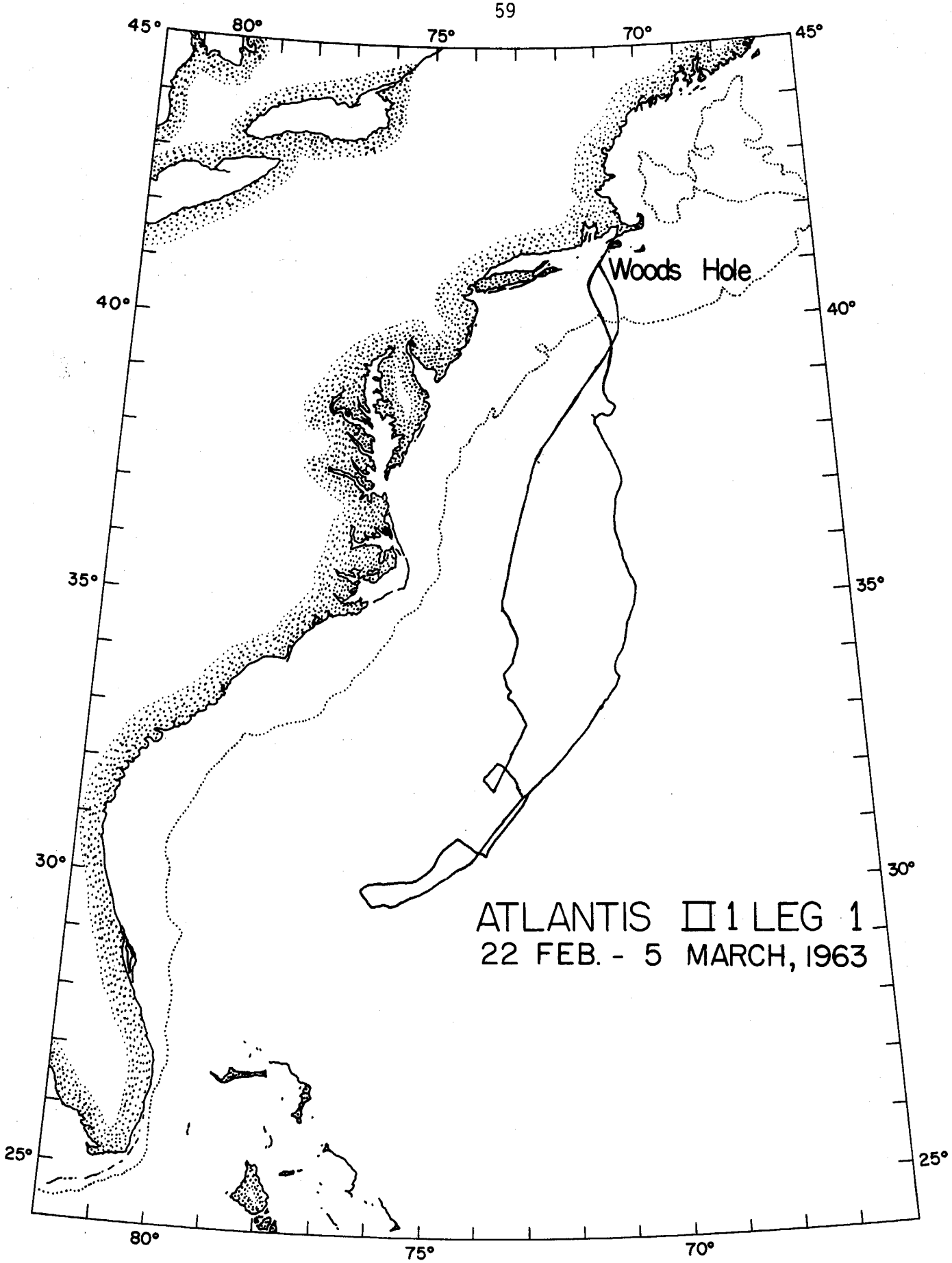
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
ATL	296	C	0001	0000	8	63 8 8	38 16.0'N	63 5.0'W	5	115.83	0001	3691.	3254.	1.5K	12	0000	0	
ATL	296	C	0002	0000	7	63 8 8	38 22.0'N	63 7.0'W	5	115.83	0002	3539.	3444.	010G	12	0000	0	
ATL	296	C	0003	0000	8	63 8 9	39 31.0'N	65 21.0'W	5	115.95	0003	3382.	3307.	001K	12	0000	0	
ATL	296	C	0004	0000	8	63 8 9	39 31.0'N	65 21.0'W	5	115.35	0004	4143.	3961.	1.6K	12	0000	0	
ATL	296	C	0006	0000	8	63 810	39 37.0'N	65 57.0'W	5	115.95	0006	3004.	1961.	007K	12	0000	0	
ATL	296	C	0007	0000	8	63 810	39 37.0'N	65 59.0'W	5	115.95	0007	3476.	2437.	011K	12	0000	0	
ATL	296	C	0008	0000	8	63 811	39 29.0'N	65 26.0'W	5	115.95	0008	2617.	2947.	008K	12	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS 296 STATION _____ DREDGE See below DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 1	Limestone	1.5K		Slab 5x5x1 inches, containing brachiopods							Mn on one side
Sta 3	Mn	1.1K		Broken slabs, some with Fe-rich layers							
Sta 4	Erratics	1.6K		Cobble size							
Sta 6	Basalt scoria	110G									
	Clay	2.4K		Semi-consolidated somewhat calc clay							
	Erratic cobbles	4.5K		Phyllite, quartzite, quartz-diorite, greenstone, tonalite, granite, limestone							
Sta 7	Volcanics	340G		One piece breccia, one possible tuff							
	Limestone	220G		Thin slab of crystalline limestone							
	Erratics	10K		17 cobble-size erratics							
	Unfoss. Clay	150G									
Sta 8	Erratics	8.2K		Cobbles: granodiorite, granite, pegmatite, quartz-diorite, basalt (striated), phyllite,							red siltstone


45°
80°
75°
70°
45°
Woods Hole
40°
40°
35°
35°
30°
30°
ATLANTIS II 1 LEG 1
22 FEB. - 5 MARCH, 1963
25°
25°
80°
75°
70°

****
****

STATION DATA RETRIEVAL
DATE: 08:52 SEP 21,'81

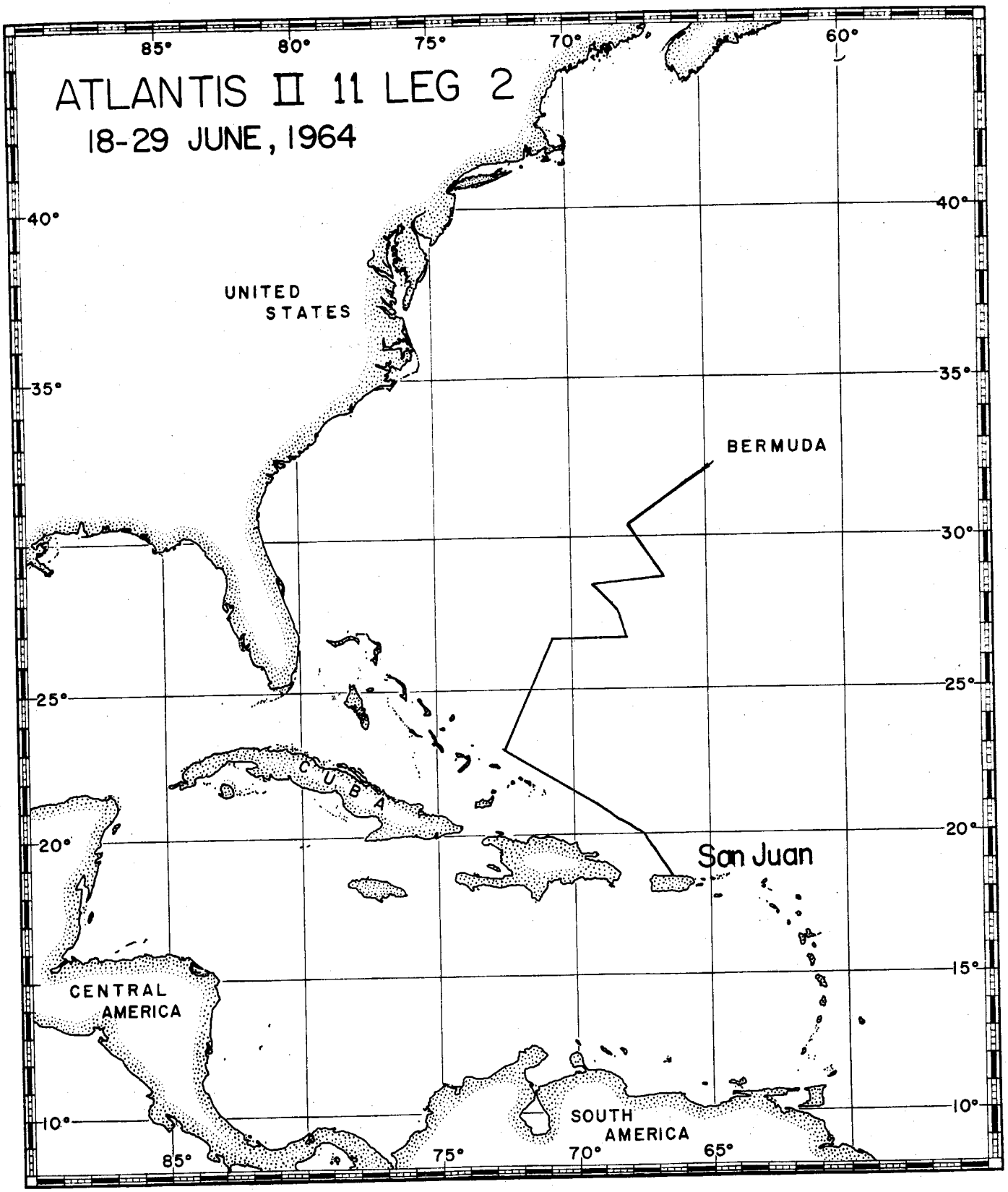
****
****

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	1	1	0002	0000	7	63 3 4	39 43.0'N	70 42.6'W	5	116.90	0002	2027.	2027.	7.4K	4	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE ATLANTIS II-1 STATION 2 DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 2 Biology dredge	Calcite	4.5K		Large chunk of calcite							
	Erratics	1.8K		Small cobbles and pebbles							
	Sandstone	1.4K		Heavily burrowed, somewhat calcareous sandstone with large shell inclusions							


ATLANTIS II 11 LEG 2
18-29 JUNE, 1964
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
UNITED STATES
BERMUDA
CUBA
San Juan
CENTRAL AMERICA
SOUTH AMERICA
65°

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	11	2	0021	0000	8	64 7 5	20 6.0'N	65 8.0'W	5	79.05	0001	7861.	6671.	107K	5	0000	0	
AII	11	2	0022	0000	8	64 7 6	20 6.8'N	65 3.8'W	5	79.05	0002	7265.	6572.	200K	5	0000	0	
AII	11	2	0024	0000	8	64 7 7	20 6.0'N	65 7.0'W	5	79.05	0003	7463.	6078.	046K	5	0000	0	
AII	11	2	0025	0000	8	64 7 8	20 .8'N	65 9.0'W	5	79.05	0004	8140.	7463.	073K	5	0000	0	
AII	11	2	0026	0000	8	64 7 9	19 59.0'N	65 14.0'W	5	79.95	0005	7244.	7190.	027K	5	0000	0	
AII	11	2	0028	0000	8	64 7 9	19 59.5'N	65 1.7'W	5	43.95	0006	7942.	7662.	5.9K	5	0000	0	
AII	11	2	0030	0000	8	64 710	20 8.0'N	65 3.5'W	5	79.05	0008	7352.	7287.	118K	5	0000	0	
AII	11	2	0032	0000	8	64 711	19 17.7'N	65 10.4'W	5	43.95	0010	7023.	6729.	030K	5	0000	0	
AII	11	2	0033	0000	8	64 711	19 16.9'N	65 5.3'W	5	43.95	0011	6749.	6513.	007K	5	0000	0	
AII	11	2	0034	0000	8	64 712	19 4.6'N	66 9.0'W	5	43.96	0012	4983.	4105.	2.9K	5	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII-11 STATION 21 DREDGE 1 DESCRIBED BY BRODA/FARMER DATE

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
29(A)	Basalt	.9	A		4-5% Pg, tr Ol		tr		M	green palagonite	
27(B)	Basalt	.9	A		" "		tr	tr	M-H		
W-5	Basalt	.3	A		7% Pg, tr Ol			tr	H-M		
C	Basalt	.7	A		2% Pg				M-H		
W-25	Basalt	2.0	A		3-5% Pg, tr Ol		tr		M-H		
W-26	Basalt	1.3	A					tr	M-H		
W-25	Basalt	1.1	A					tr	M-H		
F	Basalt	1.1	A					tr	H		
W-4	Basalt	.3	A						H		
W-7	Basalt	.3	A		1% Pg, tr Ol				M-H		
W-9	Basalt	.1	A		10% Pg		tr		H		
W-10	Glassy basalt	.1	A				tr		L-M	Variolitic rind with palagonite	
W-27	Basalt	.5	A		5% Ol (weathered)		S?		M	Calcite vein	
W-28	Basalt	.2	A		5% Ol				M-H	Green palagonite &/unusual weathering zones	
(W-28)	Palagonite breccia	.04	A								
Unnumbered	Angular basalt	92.0	A		Varied						
--	Chert & mudstone	450g									

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII-11 STATION see below DREDGE see below DESCRIBED BY BRODA/FARMER DATE

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 22	DREDGE 2										
-6	Basalt	6.7	A		3% Pg		tr	tr	M		
W-25	Basalt	3.2	A		7% Pg 1% 01			tr	M		
W-28	Basalt	1.6	A		2% 01			tr	H		
103	Basalt	.8	A		3% 01 1% Pg	tr		tr	M		
101	Basalt	.75	A		3% Pg	tr			M-H		
Unnumbered	Basalt	160	A		Varied				M-H		
	Chert & Mudstone	3.4									
STA 24	DREDGE 3										
-A	Basalt	.3	A		2% Pg				M		
-F	Basalt	.6	A		1% Pg tr 01	tr		tr	H		
-37	Basalt	1.0	A		2% Pg tr 01	tr		tr	M-H		
-55	Basalt	2.0	A		2% Pg tr 01	tr		tr	H		
-34	Basalt	3.0	A		5% 01	tr		tr	M		
Unnumbered	Basalt	35	A		Varied						
	Mudstone	2.5									mostly pink
	Chert	.9									

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII-11 STATION see below DREDGE see below DESCRIBED BY BRODA/FARMER DATE

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 25	DREDGE 4										
W-1	Basalt	3.1	A		3% 01 tr Pg	tr			M		
W-5	Basalt	.8	A		1% Pg			tr	M		
W-21	Basalt	1.3	A		2% Pg tr 01			tr	H		
W-148	Basalt	.8	A		tr ol	tr		tr	M		
Unnumbered	Basalt	52	A		Varied						
	Chert	4.0									
	Mudstone	.5	A								highly altered sandstone shows signs of wet sediment deformation
STA 26	DREDGE 5										
52	Basalt	.7	A		tr ol 2% Pg	tr		tr	M		
W-16	Basalt	1.0	A		3% Pg tr 01	tr		tr	H		
54	Basalt	2.0	A		5% 01		tr	tr	M		
Unnumbered	Basalt	18	A		Varied						
	Chert	6.4									various colors & slabs brown to black

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII-11 STATION see below DREDGE see below DESCRIBED BY BRODA/FARMER DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 28	DREDGE 6										
	Claystone	5.4	A								light gray
	Calcareous mudstone	500g	M								white
STA 30	DREDGE 8										
-9	Basalt	1.5	A		tr Ol tr Pg			1 mm	M		
-16	Basalt	.8	A			tr		tr	H		
21	Basalt	.75	A		5% Ol tr Pg			tr	M		
24	Basalt	1.6	A		tr Pg tr Ol	tr		tr	H		
330	Basalt	.8	A		tr Ol 2% Pg			tr	M		
292	Basalt	1.3	A			1%		1 mm	H		
Unnumbered	Basalt	100	A		varied						
	Chert	680g									
	Radiolarian clay	200	A								

WHOI ROCK SAMPLE DESCRIPTION

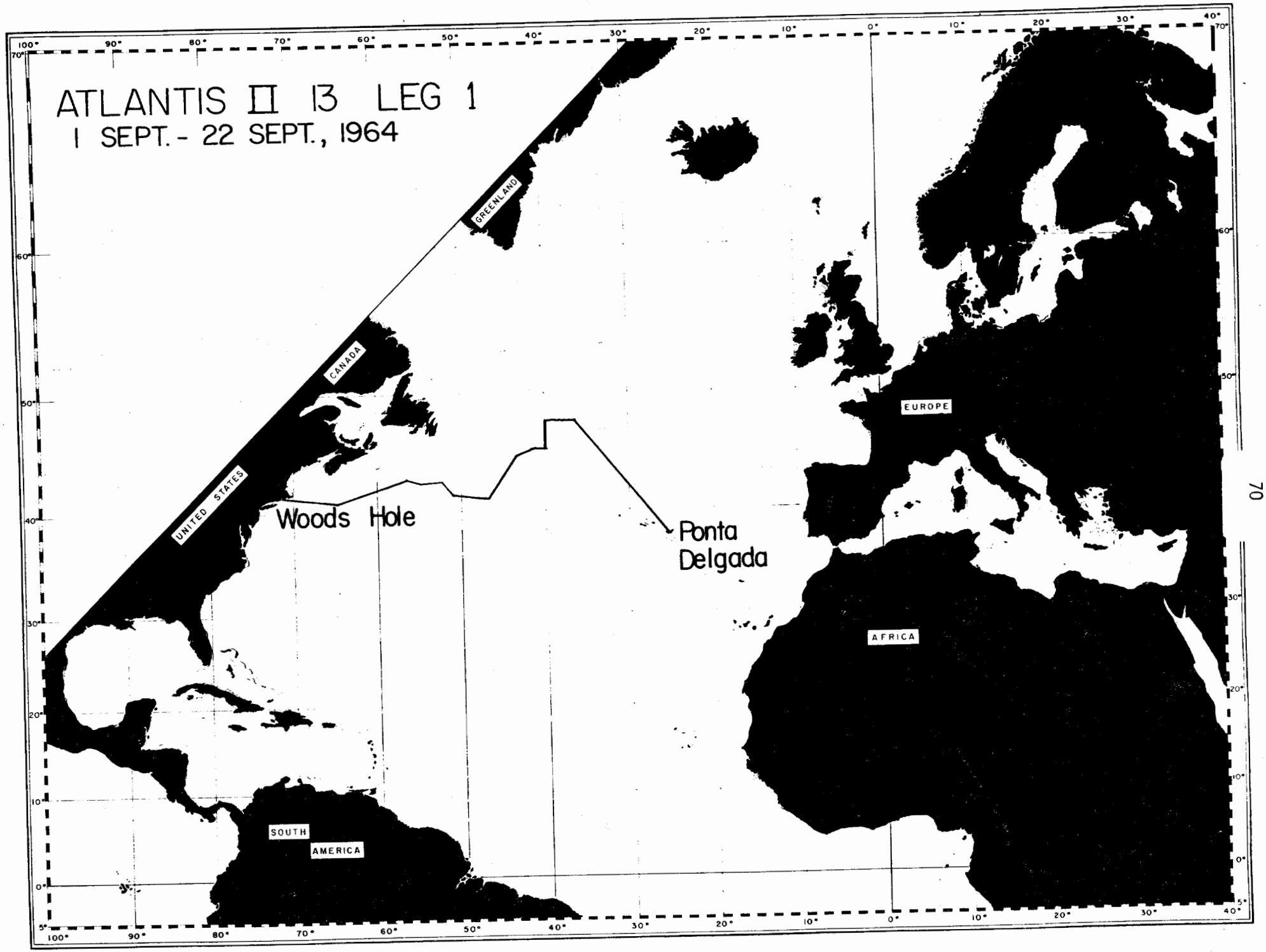
CRUISE AII-11 STATION see below DREDGE see below DESCRIBED BY BRODA/FARMER DATE

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 32	DREDGE 10										
-1	Basalt	.8	A		1% 01	tr			M		
-6	Basalt	.7	A		tr Pg		tr		M		
-10	Basalt	1.2	A		3% 01 1% Pg			tr	H		
-12	Basalt	1.5	A					1 mm	H		
-24	Basalt	2.0	A		3% Pg	tr		1 mm	M		
Unnumbered	Basalt	16K	A		Various						
	Limestone	.9	A								
STA 33	DREDGE 11										
3	Basalt										
5	Basalt	.7	A		1% 01	tr		tr	M		
10	Basalt	1.0	A		3% Pg 1% 01			1 mm	M		
12	Basalt	.8	A		2% 01			2 mm	M		
11	Basalt	.5	A		tr Pg	tr			H		
20	Basalt	.9	A		tr 01				H		
	Chert	250g	A							Pink	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 11 STATION 34 DREDGE 12 DESCRIBED BY BRODA/FARMER DATE

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	Limestone	1.5	A								
	Coral	.5									Fragments
	Claystones	.25									Light gray
	Calc Ooze	.75									Indurated


ATLANTIS II 13 LEG 1
1 SEPT. - 22 SEPT., 1964
GREENLAND
CANADA
UNITED STATES
EUROPE
AFRICA
SOUTH
AMERICA
Woods Hole
Ponta
Delgada

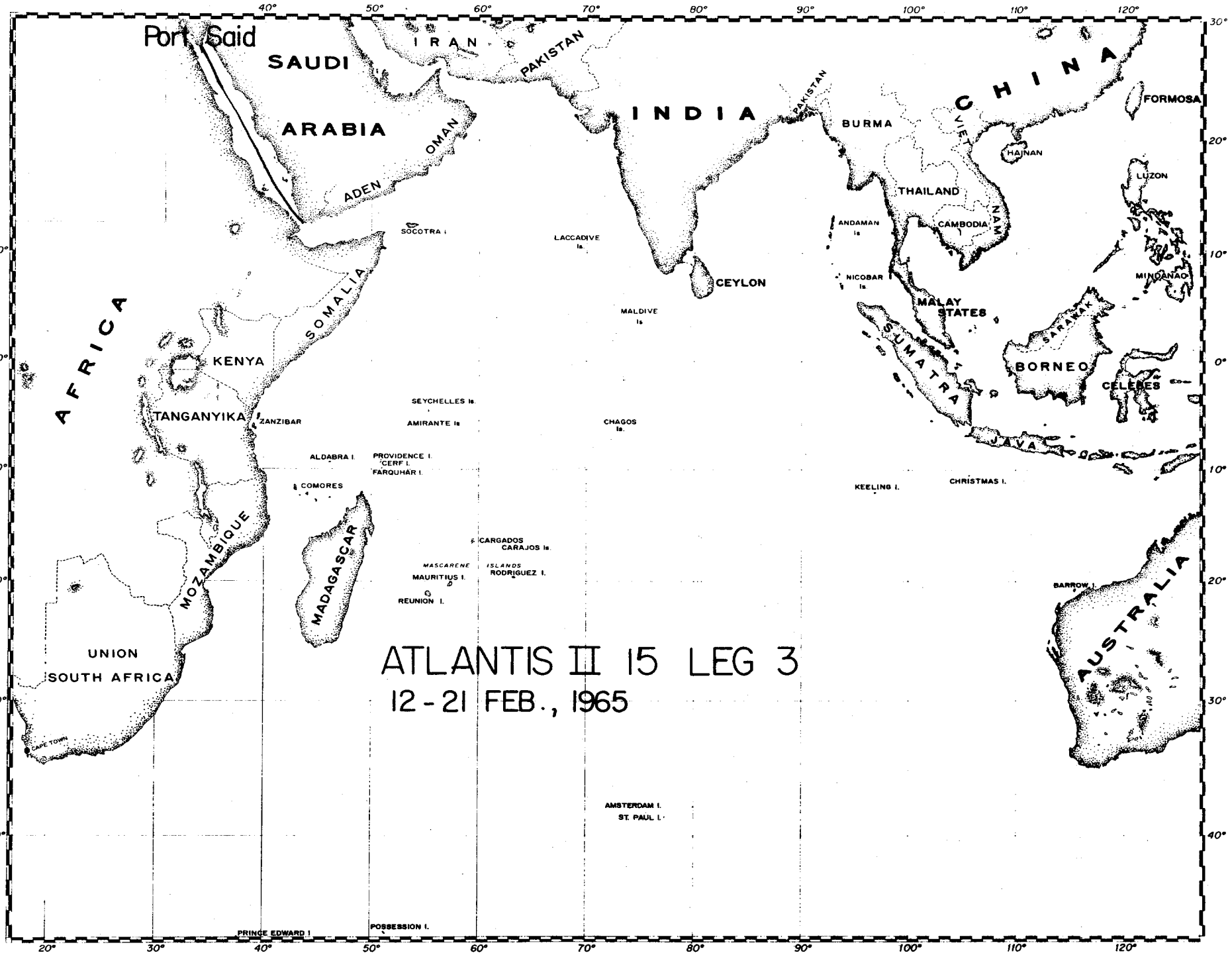
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	13	1	0075	0000	8	64 919	42 29.0'N	28 56.0'W	1	147.28	0001	1159.	1159.	031K	15	0000	0	
AII	13	1	0076	0000	8	64 924	37 51.0'N	25 52.0'W	1	111.75	0002	73.	73.	004K	1	0000	0	
AII	13	1	0077	0000	8	64 926	39 35.0'N	31 12.0'W	1	112.91	0003	191.	191.	004K	1	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

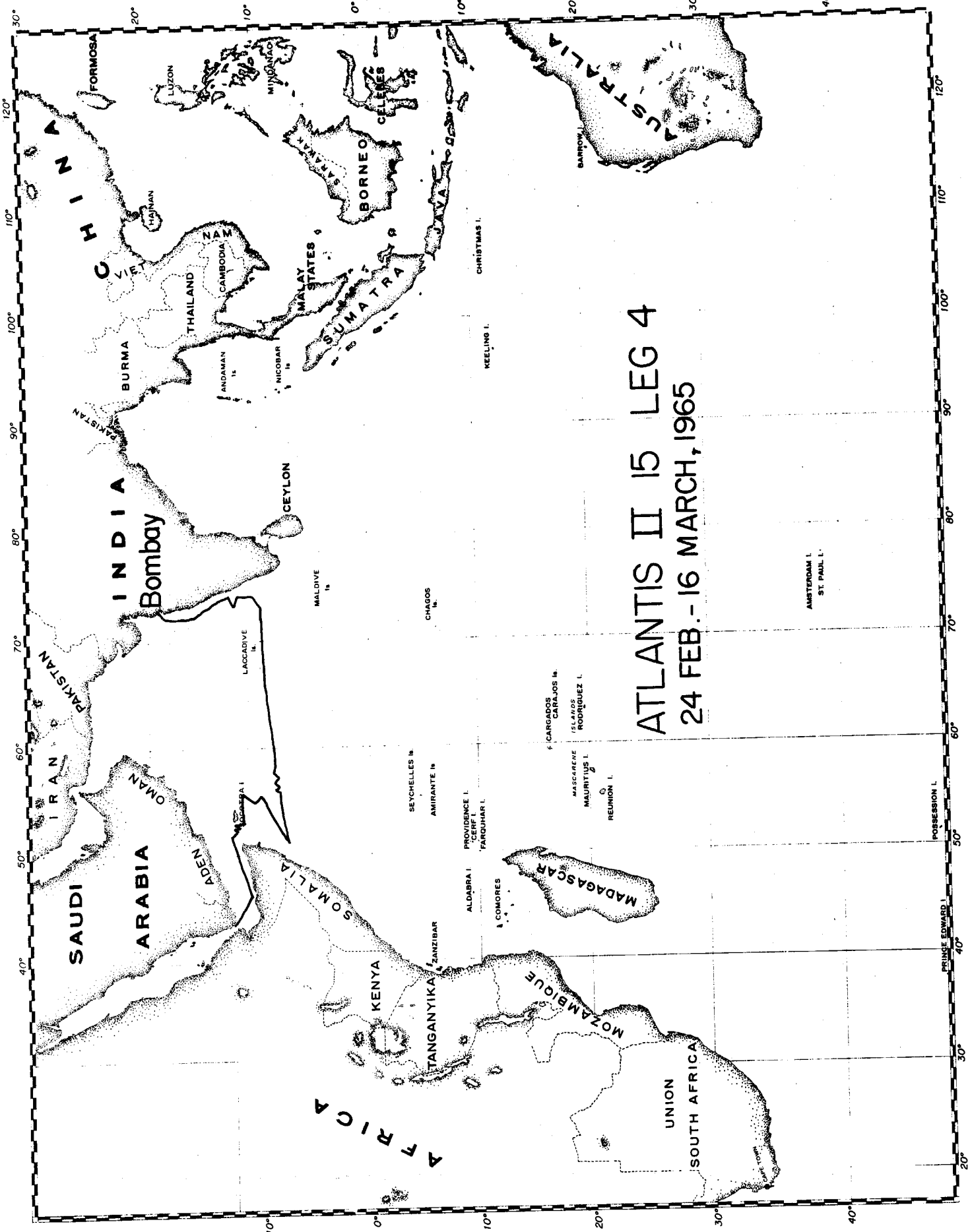
CRUISE AII 13 STATION See below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION	75 Dredge 1										
Unnumbered	Coral	9.5K		hash, elongate pieces and blocks of hash cemented with calc ooze							
1a	Basalt	5.2	A		Pg,Ol,Px total 8%	2%		tr	M		Eleptical worm tube
2	Slate (erratic)	10.4									
3	Quartzite erratic	.9K									
4	Granitic erratic	.25K									
STATION	76 Dredge 2										
Unnumbered		4.1K			Pumice & a few shells						
STATION	77 Dredge 3										
Unnumbered		4.1K			Fine coral & shell hash						



ATLANTIS II 15 LEG 3

12 - 21 FEB., 1965


ATLANTIS II 15 LEG 4
24 FEB. - 16 MARCH, 1965
CHINA
FORMOSA
LUZON
MINDANAO
CELEBES
BORNEO
SARAWAK
HAINAN
VIET NAM
CAMBODIA
THAILAND
BURMA
MALAY STATES
SUMATRA
JAVA
AUSTRALIA
BARROW I.
CHRISTMAS I.
KEELING I.
ANDAMAN Is
NICOBAR Is
PAKISTAN
INDIA
Bombay
CEYLON
MALDIVE Is
CHAGOS Is
LACCADIVE Is
AMSTERDAM I.
ST. PAUL I.
PAKISTAN
IRAN
OMAN
SAUDI ARABIA
ADEN
SOMALIA
SEYCHELLES Is
AMIRANTE Is
PROVIDENCE I.
CERF I.
FAROUHAR I.
ALDABRA I.
COMORES
CARGADOS CARAJOS Is.
ISLANDS ROQUEZ I.
MASCARENE
MAURITIUS I.
REUNION I.
MADAGASCAR
POSSESSION I.
PRINCE EDWARD I.
KENYA
ZANZIBAR
TANGANYIKA
MOZAMBIQUE
AFRICA
UNION SOUTH AFRICA
CAPE TOWN

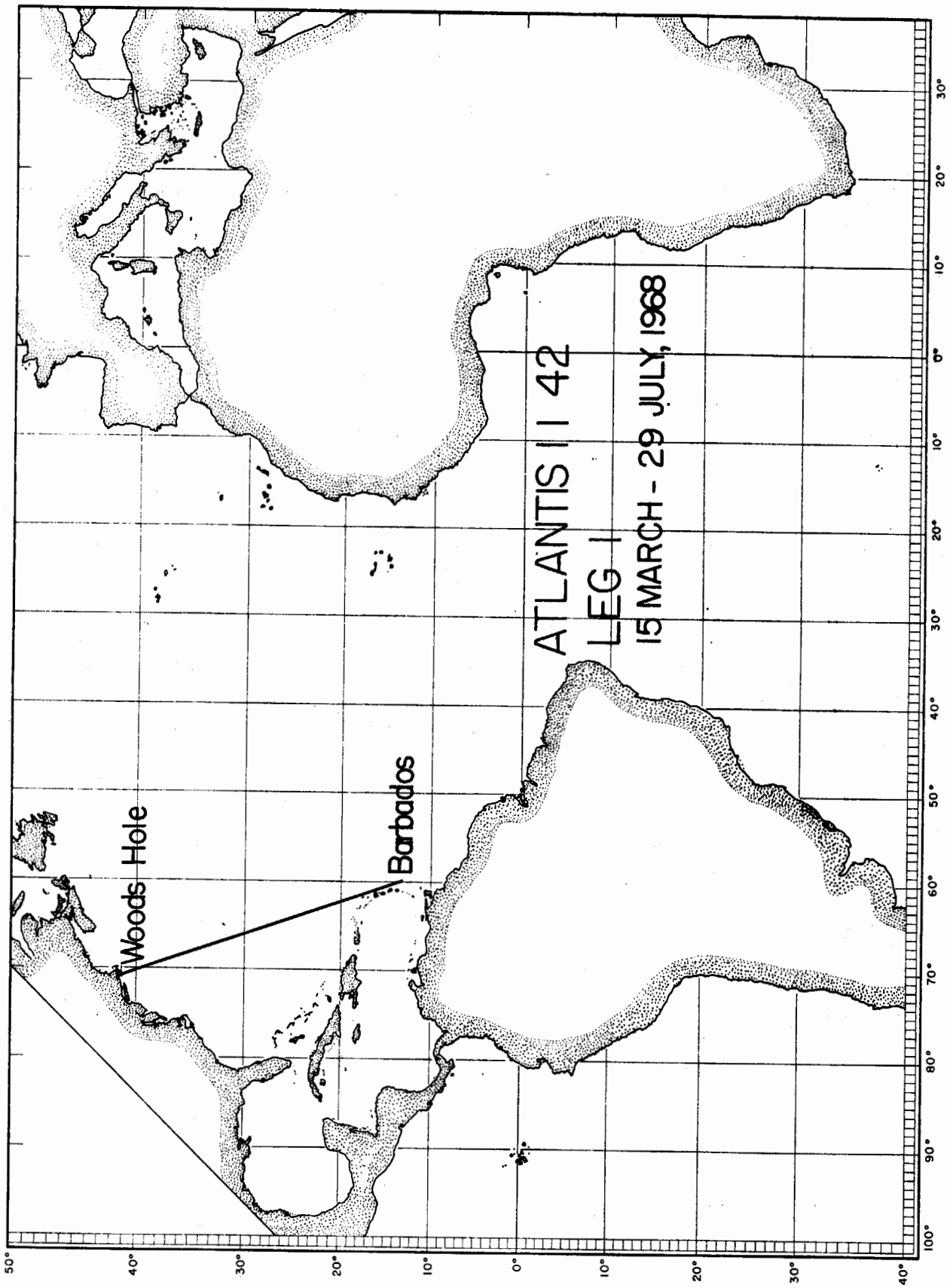
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	15	3	0008	0000	8	65 213	30 21.5'N	32 19.0'E	1	141.02	0001	7.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0009	0000	8	65 213	30 19.5'N	32 19.7'E	1	141.02	0002	9.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0015	0000	8	65 214	30 20.9'N	32 25.7'E	1	141.02	0003	9.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0016	0000	8	65 214	30 23.0'N	32 24.0'E	1	141.02	0004	4.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0017	0000	8	65 214	30 23.8'N	32 21.5'E	1	141.02	0005	5.	0.	227G	99	0000	0	BITTER LAKE
AII	15	3	0018	0000	8	65 214	30 23.4'N	32 18.8'E	1	141.02	0006	4.	0.	113G	99	0000	0	BITTER LAKE
AII	15	3	0019	0000	8	65 214	30 21.5'N	32 19.0'E	1	141.02	0007	7.	0.	113G	99	0000	0	BITTER LAKE
AII	15	4	0556	0000	10	65 228	9 .0'N	51 5.0'E	9	31.91	0556	977.	0.	113G	4	0000	0	
AII	15	4	0557	0000	10	65 3 1	9 .0'N	51 25.0'E	9	31.91	0557	2580.	0.	456G	4	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 15 STATION _____ DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 8	Detrital sand	220g		Fine to coarse light brown detrital sand							
STA 9	" "	"		Very fine, tan, detrital sand							
STA 15	" "	"		Pale brown, detrital, medium sand with numerous shell fragments							
STA 16	" "	"		Fine pale brown detrital sand with numerous small shell fragments							
STA 17	" "	"		Very pale tan, medium detrital sand with an occasional shell fragment							
STA 18	Highly calc clay and sand	110g		Highly calc clay with abundant sand							
STA 19	Detrital sand	110g		Very pale tan, medium, detrital sand with an occasional shell fragment							
STA 556	Foram sand	110g									
STA 557	Calc-silic-ooze	450g									


ATLANTIS II 42
LEG I
15 MARCH - 29 JULY, 1968
Woods Hole
Barbados
50°
40°
30°
20°
10°
0°
10°
20°
30°
40°
50°
60°
70°
80°
90°
100°

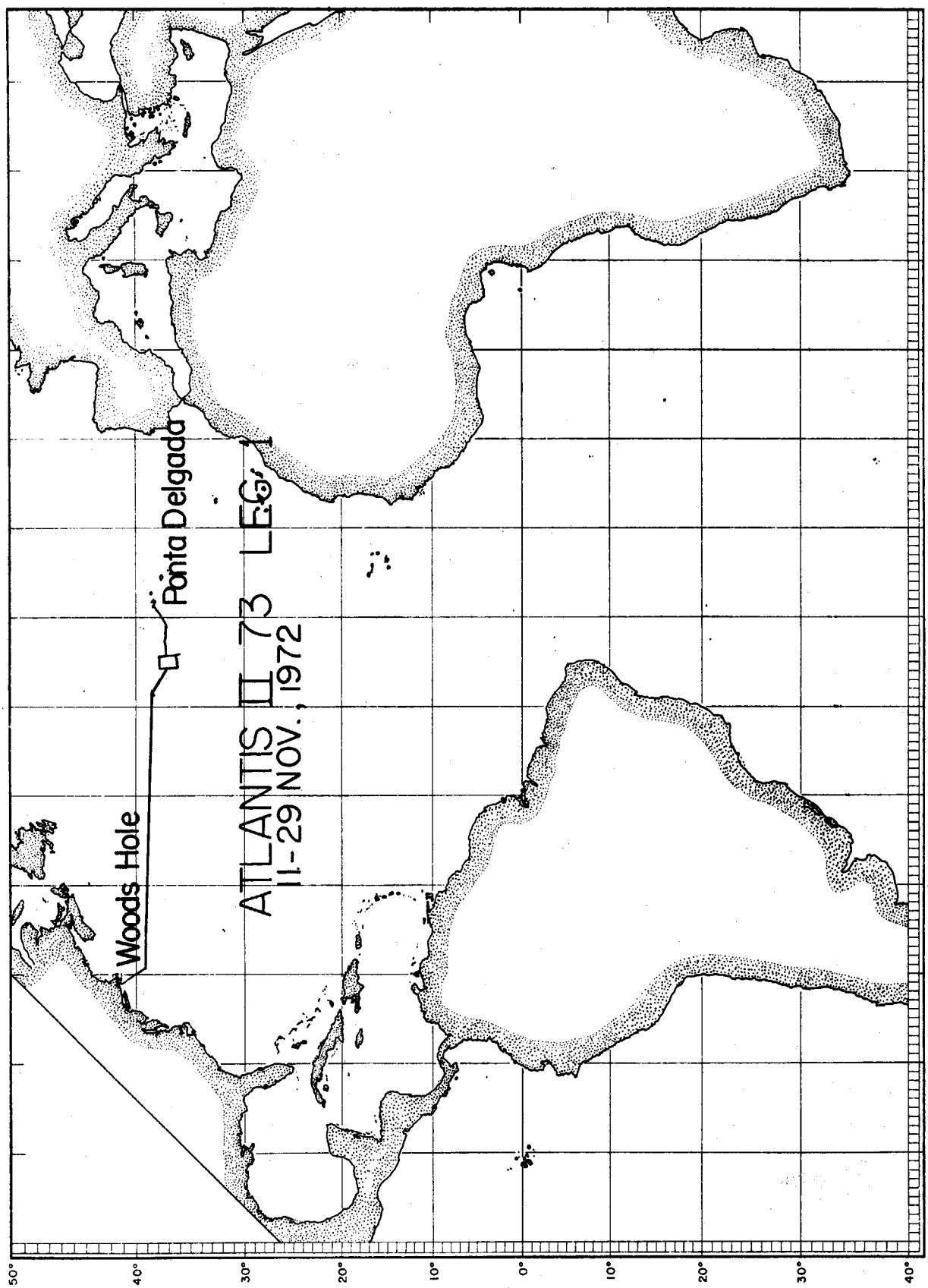
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	42	1	0018	0000	8	68 713	19 27.8'N	46 5.6'W	3	41.96	0001	2861.	2861.	010K	16	0000	C	
AII	42	1	0019	0000	8	68 713	19 32.3'N	46 6.1'W	1	41.96	0002	2278.	2278.	7.5K	16	0000	C	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII-42 STATION see below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 18 Dredge 1		kg						mm			
1	Basaltic diabase	3.6							H		
2	Columnar basalt	3.7	A			tr		tr	L	Heavily weathered palagonite	
3	Basaltic diabase	1.4	A						H		Crumbly
4	Columnar basalt	2.9	A		tr Pg	tr		tr	L		
STATION 19 Dredge 2											
1	Glassy basalt	2.7	A			tr		.3	F	Palagonite rind	
2	" "	3.5	A		tr Pg	tr		.3	F	" "	
3	" "	2.0	A		tr Pg	tr		.3	F	" "	5 pieces
4	Hyaloclastic sed	.8						1.5		Palagonite glass & calc ooze	
5	Mudstone	1.0								Stratified chunks of basaltic glass/ foram pteropod ooze	


Woods Hole
Ponta Delgada
ATLANTIS II 73 LEG 1
11-29 NOV., 1972
50°
40°
30°
20°
10°
0°
10°
20°
30°
40°
10°
0°
10°
20°
30°
40°
50°
60°
70°
80°
90°
100°

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	73	1	0010	0000	8	721124	36 44.7'N	33 15.2'W	11	112.63	0002	2328.	2391.	016K	14	0000	0	
AII	73	1	0012	0000	8	721125	36 44.4'N	33 16.7'W	11	112.63	0003	2476.	2426.	120G	16	0000	0	
AII	73	1	0014	0000	8	721125	36 44.5'N	33 17.2'W	11	112.63	0004	2519.	2475.	066K	16	0000	0	
AII	73	1	0016	0000	8	721126	36 42.0'N	33 17.6'W	11	112.63	0005	2627.	2627.	6.6K	16	0000	0	
AII	73	1	0018	0000	8	721126	36 44.5'N	33 17.1'W	11	112.63	0006	2589.	2589.	9.1K	16	0000	0	
AII	73	1	0024	0000	8	721127	36 45.5'N	33 21.2'W	11	112.63	0008	1745.	1477.	073G	16	0000	0	
AII	73	1	0038	0000	8	7212 6	36 29.7'N	33 23.9'W	11	112.63	0009	2626.	2626.	8.7K	16	0000	0	
AII	73	1	0047	0000	8	7212 9	36 30.6'N	33 25.3'W	11	112.63	0012	2781.	2250.	017K	16	0000	0	
AII	73	1	0050	0000	8	7212 9	36 29.3'N	33 39.0'W	11	112.63	0013	2589.	2589.	011K	16	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 73 STATION See below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE March 19,78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA	10 -Dredge 2	kg						mm			
1	Fresh glass basalt	.75	A			1%		.5 w.p.	VF	Surficial palagonite	Chambered, glassy gas pocketed fragments
2	"	.9	A			1%		"	"	"	" " (calc ooze)
7	"	.9	A			1%		"	"	"	"
12	"	.9	A			1%		"	"	"	" (worm tubes)
26	"	1.7	A			1%		"	"	"	" (sponge)
27	"	5.5	A			1%		"	"	"	" (coral & calc ooze)
3	"	5.3	A			1%		"	"	"	"
4	"	5.3	A			1%		"	"	"	" (lg cavity filled w/calc ooze)
5	"	5.3	A			1%		"	"	"	" (lg coral/ fast hold-
6,8,11	"	5.3	A			1%		"	"	"	"
13-18	"	5.3	A			1%		"	"	"	"
20-25	"	5.3	A			1%		"	"	"	"
28-32	"	5.3	A			1%		"	"	"	"
STA	12, Dredge 3										
1	Fresh glass (basalt)	.2	A		45% Pg				VF	Minor palagonite crust	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 73 STATION 14 DREDGE 4 DESCRIBED BY FARMER/BRODA DATE 3/19/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
14-1	Glassy tubular basalt	.5	A		4-7% Pg Tr Ol	3-8%			F		All pieces are remarkably similar miniature tubes
2	"	1	A		" "	"			"		" "
3-10	"	2	A		" "	"			"		" "
11	"	3.75	A		" "	"			"		" "
12-19	"	2.5	A		" "	"			"		" "
20	"	1.7	A		" "	"			"		" "
21	"	1.7	A		" "	"			"		" "
22	"	.5	A		" "	"			"		" "
23-27	"	1.4	A		" "	"			"		" "
28	"	1	A		" "	"			"		" "
31	"	1	A		" "	"			"		" "
32	"	1.5	A		" "	"			"		" "
33,34	"	22	A		" "	"			"		" "
35	"	4.1	A		" "	"			"		
36	"	34.5	A		" "	"			"		lg lava tube, evidence of central cavity
39	"	3.6	A		" "	"			"		
40	"	4.5	A		" "	"			"		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 73 STATION 16 DREDGE 5 DESCRIBED BY FARMER DATE 23 March 78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
16-1	Glassy basalt tube	.2	A		3% Pg	5%			VF		Virtually glass thru out
2	Glassy pillow basalt	2.3	A		3% Pg tr Ol	5-7%	tr		F	Palagonite just beginning	
3	Glassy basalt tube	1.9	A		3% Pg	"			VF		
4	Palagonite & glass crust	.1	A		50% Pg	5%			F		
5	Basalt	1.9	A		1%Pg tr Ol	5%			VF		
6	Glassy basalt	.5	A		3% Pg	5-7%			VF		Virtually glass thru out
7	" "	.2	A		3% Pg	"			F		" " " "
8	" "	.3			5% Pg	7%			F		" " " "

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 73 STATION 18 &24 DREDGE 6 &8 DESCRIBED BY FARMER DATE

Sample #	Lithology	Wt. kg	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Dredge 6 18-1	Basalt tube	5.6	A		5-7% Pg tr Ol	3-7%			VF		Virtually glass thru out
2	" "	2.7	A		" "	"			VF		"
3	" "	.2	A		5-7% Pg	"			VF		"
4	Glassy basalt	.2	A		7-10% Pg	"			VF		
5	Miniature basalt tube	.3	A		5% Pg	4%			VF		Virtually glass thru out
6	" "	.7			5-7% Pg	4%			VF		" " "
Sta 24, dredge 8											
24-1	Calcareous breccia	.1	M	Fragments of weathered volc.	rock			.1	H		Calcareous cement much palagonite

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII-73 STATION 38 DREDGE 9 DESCRIBED BY FARMER DATE 23 March 78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
38-1	Basalt	.8	A			<1%		1	M		
2	Basalt	.3	A			1%		.5	M		Minor calc ooze cora. holdfast
3	Basalt	.5	A-F		20%Pg others?	10%	1%	1-2	M		$CaCO_3$ cemented breccia w/limestone & basalt fragments
5	Basalt	.2	A			2%		<.1	M		
6	Chalk	<.1	A					<.1			
7	Basalt	5.1	A		10-15% Pg,tr Ol	2-3%	tr	2	L-M	Worm tubes coral &calc ooze on surface	Substantial palagonite crust
8	Basalt	1.1	A		10% Pg	2%		2	M	Calcareous w/glass	Cemented breccia fragments on surface

WHOI ROCK SAMPLE DESCRIPTION

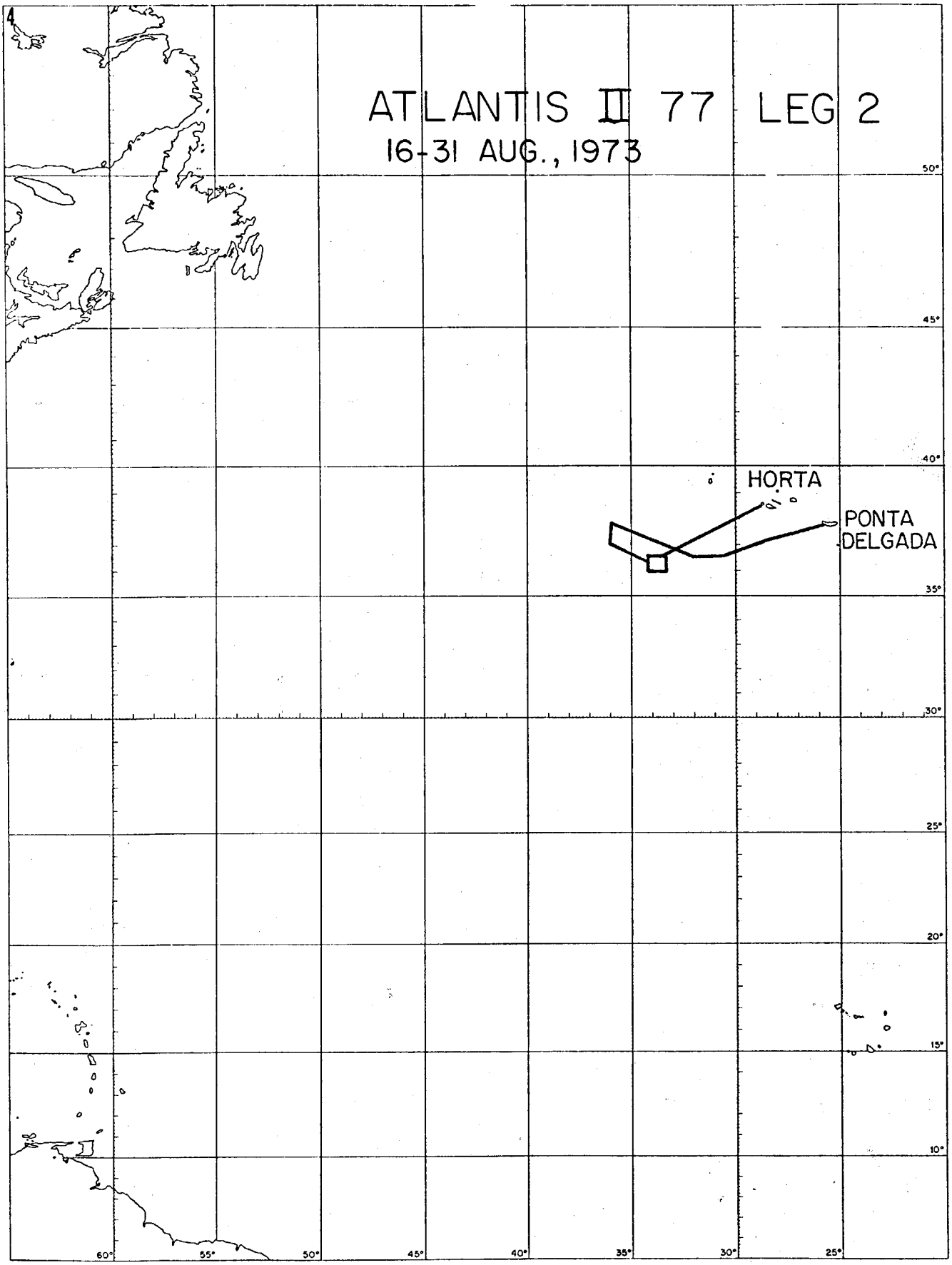
CRUISE AII 73 STATION 47 DREDGE 12 DESCRIBED BY FARMER/DICK DATE

Sample #	Lithology	Wt.	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
21,26											
28-39,41	foram sandstone	3.6	F								
1	Serpentine	3.6	M	talc				1	L		
2	Serpentine	.1	A					.1	L		
3	Greenstone	.1	A					.1	L		
4	Serpentine/ Greenstone ?	.1						1	H		Porous
6	Serpentine	.1									Brecciated
7	Serpentine	.2						1.0	H		
8	Serpentine	<.1		talc				.2	H		
9	Serpentine	"						.1	H		Rudingite vein in center
10	Serpentine	.1		talc				.1	H		Chalk on outside
11	Basalt breccia	.1		talc				.2	H		$CaCO_3$ cemented breccia of basalt fragments
12	Serpentine greenstone	.2						1	H		
13	"	.2						.1	L		
14	Basalt	.2						.2	H		
15-18	Serpentine greenstone	.5						.1	M		
20-24	"	.6						.1-.5	M		#20-sheared fragment
25	Metagabbro	7	C					.5	L		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 73 STATION 50 DREDGE 13 DESCRIBED BY FARMER DATE 3/23/73

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
50-1	Basalt	8.6	A		1% Pg very smal	3	tr		F		Substantial glass margin
2	Basalt	1.3	A		1%Pg, Tr. ol	5		<<.1	F		
3	Basalt	<.1	A		" "	"			"		
4	"	.1	A		" "	"			"		
5	"	.4	A		" "	"			"		
7	Basalt glass	Very small	A			"			"		
8	" "	"	A			"			"		
9	Basalt	.1	A			"			"		
10	Glass crust (basalt)	.1	A		50% Pg				L		
11	" " "	.1	A		70%Pg,tr px?				L		


ATLANTIS II 77 LEG 2
16-31 AUG., 1973
HORTA
PONTA DELGADA
50°
45°
40°
35°
30°
25°
20°
15°
10°
60°
55°
50°
45°
40°
35°
30°
25°

********** STATION DATA RETRIEVAL **********
********** DATE: 08:52 SEP 21,'81 **********

PAGE 1
WHOI

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	77	2	0019	0000	8	73 811	36 32.5'N	33 34.0'W	1	112.63	0002	2713.	2713.	6.8K	16	0000	0	
AII	77	2	0023	0000	8	73 813	36 34.5'N	33 37.0'W	1	112.63	0003	2913.	2900.	4.9K	16	0000	0	
AII	77	2	0026	0000	8	73 814	36 25.0'N	33 46.0'W	10	112.63	0004	2671.	2671.	016K	16	0000	0	
AII	77	2	0028	0000	8	73 814	36 34.0'N	33 37.0'W	11	112.63	0005	2738.	2738.		16	0000	0	
AII	77	2	0037	0000	8	73 820	36 43.0'N	33 20.0'W	11	112.63	0006	2437.	2437.	228K	16	0000	0	
AII	77	2	0038	0000	8	73 820	36 43.0'N	33 20.5'W	11	112.63	0007	2443.	2443.	120K	16	0000	0	
AII	77	2	0045	0000	8	73 820	36 35.0'N	33 42.5'W	10	112.63	0008	2500.	2500.	570G	16	0000	0	
AII	77	2	0048	0000	8	73 821	36 37.0'N	33 31.0'W	11	112.63	0009	2437.	2437.	038K	19	0000	0	
AII	77	2	0052	0000	8	73 822	36 35.0'N	33 31.5'W	11	112.63	0010	2437.	2437.	120K	16	0000	0	
AII	77	2	0058	0000	8	73 823	36 27.5'N	33 35.0'W	11	112.63	0011	2231.	2231.	029K	16	0000	0	
AII	77	2	0062	0000	8	73 824	36 27.0'N	33 55.0'W	10	112.63	0012	1408.	1408.	013K	14	0000	0	
AII	77	2	0063	0000	8	73 824	36 26.0'N	33 53.5'W	10	112.63	0013	1876.	1876.	024K	14	0000	0	
AII	77	2	0067	0000	8	73 826	36 26.5'N	33 40.0'W	11	112.63	0014	2616.	2616.	035K	16	0000	0	
AII	77	2	0070	0000	8	73 826	36 26.5'N	33 41.0'W	9	112.63	0015	2437.	2437.	015K	16	0000	0	
AII	77	2	0071	0000	8	73 827	36 24.4'N	33 40.8'W	9	112.63		2500.	2700.	018K	16	0000	0	
				COMMENTS			ANGUS CAMERA FRAME RECOVERED THIS BASALT											
AII	77	2	0076	0000	8	73 828	36 26.5'N	33 38.5'W	11	112.63	0016	2518.	2518.	198K	16	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION See below DREDGE See below DESCRIBED BY FARMER/BRODA DATE 3/15/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
STATION	19, Dredge 2										
2-1	Calc ooze	1.7								Bag of lithified lumps of calc ooze	
2	Calc ooze	1.8								"	"
3	Calc ooze	1.7								"	"
4	Calc ooze	2.5								Single large fragment of lithified calc ooze	
STATION	23, Dredge 3										
3-1	Pillow basalt	4.9	A		20% Pg <1% Ol			1/2	F	Thin palagonite rind, worm tubes & holdfasts	
STATION	26, Dredge 4										
4-1	Basalt	9.7	A		2% Pg	F-M 10%		<.1	L	Palagonite rind	Calc ooze-jointed pillow frag
2	Pillow basalt	4.0	A		2% Pg	"		"	L-M		
3	Basalt	0.8	A		1% Pg, 1% Ol	F-3%		"	L-M		Calc ooze
4	Clinker coal	.250									

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION See below DREDGE See below DESCRIBED BY FARMER/BRODA DATE 3/15/78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve %	Am	Mn mm	We	Alteration	Remarks
STATION	37 Dredge 6										
37-1	Pillow basalt	34	A		45% Pg	4%		<.1	L		Thick glass with palagonite rind
2	" "	~ 45	A		"	"		"	L		" "
3	" "	"	A		"	"		"	L		" "
4	" "	~ 86	A		"	4%		"	L		" " Small internal canal
5-7,9-12	Basalt glass	18	A		50% Pg				F	Thick slabs of	glass and palagonite
8	Branching coral	.1									
STATION	38 Dredge 7										
1,2	Basalt lava tube	3.0	A		50% Pg, W/P	3%		<<.1	L	Phenocrysts and vesicles concentrated on outer rim and central portion of tube	
21-33	" " "	3.0	A		"	3%		"	L	"	"
18	Pillow basalt	2.5	A		40% Pg	7%		.2	L		Thin palagonitic rind w/Mn
34	Palagonitic rind chips	.3	A		40% Pg			.2	L		6 pieces total
9	Pillow basalt	55	A		45% Pg	2.5%		.2	L		Thin glass & palagonite rind
11	Pillow basalt	60	A		45% Pg	2.5%		.2	L		" "
STATION	45 Dredge 8										
1	Basalt	570g	A		30% Pg, <1% Ol	10		.5	L		Coral holdfasts worm tubes common

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION 48 DREDGE 9 DESCRIBED BY FARMER/BRODA DATE 16 Mar 78

Sample #	Lithology	Wt.	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
1	Breccia	1	C	Basalt & lime-stone W/CO_3 content				2-4	L-H		Remarkable
2	"	1	C	"				"	"		"
6	Greenstone		F-M		Pg			.2-1	M		Basalt breccia 1-2cm
8	"										
9	"	4.4									
10	"										
11	"										
13	Conglomerate	11	F-C					2-3	H	Pockets of calc ooze	Basalt-limestone-marl
15	Greenstone	90g	F					>>.1	M		
16	Basalt	400g	F		Olv ~1% (weathered)	15%	2%	.2	M		Palagonite rind preserved
17	Basalt	.6	A			tr		.2	L		
18	"										
19	"	1	A		1%Pg (lg.)	5%	tr	.2	L-M		Indurated marl, basalt, breccia
20	"	.4	A			3%		upto 10	M		Coral holdfast
23	"	.2	A		3% Pg (F)	7%		.1	M		" "
24	Greenstone	.2	A		Px 2%	tr	1%	.2	M		Is, basalt breccia
25	Basalt	.3	A			3%		2	L-H		Coral w/basalt inclusion

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION 48 DREDGE 9 DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
26	Basalt	<.1	A			1%	tr	<.1	L		Chalk
27	Basalt	.2	A			1%		"	L		Is
29	Basalt	.1	A					"	H		Is & basalt inclusion
30	Glassy basalt	.1	A			tr		<.1	L		Coral holdfast
31	Basalt-Pg	.1	A		25% Pg	7%		.1-2	M		
32	Greenstone	.1	A		5% Pg	tr	tr	<.1	M		
33	Basalt-greenstone	.1	A					.1	M		
A1	Serpentine marl	75g	M	Serpentinitized				<.1	H	Yes	Indurated marl
	Indurated chalk	15.9						.2			

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION 52 DREDGE _____ DESCRIBED BY H. DICK DATE 1976

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
1	Glassy basalt	1.4						.2-1.	M		
2	Conglomerate	.7		Coral & basalt	glass			.5	M	Palagonite	
3	Pillow basalt	7.2	A				C	.3	L-M		varioles & mud-filled vesicles common
4	Basalt	.2	A					.2	M-H		Calc ooze on surface
5	"	.5						.5-1	H		
6,11,13,24	Serpentine	3.0						tr		Lightly altered	lt green
8,9	Basalt	.4	A			1%	C	.1	M-H		
10	Altered basalt	2.4	A-F					.1	"		
12,14	Basalt	1.8	A					.2	"		
16	Serpentine	.6		Aragonite crystals					L		dk green
17	Basalt	1.0	A					.3	H		
18	"	>14.5		uncut				.5			
19	Pg, Basalt	.6	A		5% Pg	5%		.5	L		
20	Glassy basalt	.6	A				S	tr	L-H		Variolitic
21	"	.5	A					.5	M		Pillow margin - little unaltered rock left
22	Altered basalt	.6	A					.5	H		
25	Glassy basalt	.7	A					.1	L-M		Varioles - pillow margin
27,28	Basalt	1.3	A					.1	M-H		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION 52 DREDGE _____ DESCRIBED BY H. DICK DATE 1976

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
30	Basalt	4.1	A				C	1-2	M-H		Variolitic pillow margin
31	Basalt	1.8	A				S	.2	M-H		
32	Glassy basalt	.7	A					.2	L-M		Varioles
33	Basalt	.8	A-F					.2	H		
34	Basalt	1.0	A					.1	M-H		Calc ooze on surface
35	Pg basalt	3.0	A		3% Pg			.2	M		
36	Basalt	.7	A					.1	M		
38	"	.8	A			15%		1	M		Mud-filled vesicles
37,39-42	"	3.5	A					.1-1.0	M		
44	Pg, basalt	.5	A		5% Pg			.2	M		
45-55	Basalt	5.5	A					.1-.3	M-H		
57	Glassy basalt	.3	A					.2	L-M		Variolitic
58	Basalt	.5	A			20%	tr	.2	H		Mud-filled vesicles
59	Basalt	.2	A				S	.2	M-H		
60	Basalt	.4	A					.1	M-H		
62	Basalt	.3	A			3%		.1	H		Mud-filled vesicles
63	Basalt	.4	A					.1	M		
64	Basalt	.4	A			2% filled		.1	M		Hematite spots

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION 52 DREDGE _____ DESCRIBED BY H. DICK DATE 1976

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
65,68	Basalt	.7						.2	M		
A2	Glassy basalt	.7	A					.1	L-H		Varioles
A3	Basalt	1.0	A					.1	M		
A4-A6	Serpentine	.3						tr			
A7	Serpentine	.2									lt rodengite vein on lt green serpentine
A8	Glassy basalt	.1	A					.1	L-M		Variolitic
A9	Basalt	.1	A				C		H		
A10	Glassy basalt	.2	A					.1	L-H		Variolitic pillow margin
A11	Glassy basalt	.2	A				S	tr	L-M		Amygdaloidal & variolitic
A13	Pg, Basalt	.1	A		7% Pg	4%		.2	L-M		
A14	Basalt	.3	A				A	.1	H		
A15	Pg Basalt	.1	A		5% Pg	7%		.2	M		
A16	Glassy basalt	.1	A					.1	L-H		Variolitic
A18	Basalt	.1	A					1-2	M		
A19-A22	Glassy basalt	.7	A					.2	L-H		Variolitic
A23	Pg basalt	.1	A		7% Pg	7%		.3	L		
A24	Basalt	.3	A			15%		.1	M		Mud-filled vesicles
A25	"	.1	A					.2	M-H		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION 52 DREDGE _____ DESCRIBED BY H. DICK DATE 1976

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
A26	glassy basalt	.1	A						L-H		amygdaloidal pillow margin
A27	marl	.1						tr			
A28	glassy basalt	.1	A					.1	H		
A29-A31	Basalt	.4	A			tr		.2-.5	M-H		
A32	Glassy basalt	.1	A			tr		.1	L-H		
A33-A36	Basalt	.5	A					.1	M		
A37	Glassy basalt	.2	A				S	.1	H	Palagonite	
A38,A39	Basalt	.4	A					.1	M		
A40-A44	Basalt	.7	A					.1	M		Mud-filled vesicles
A45	Basalt	.1	A					.1	M		
A46	basalt-greenstone	.1	A					.1	M		
A47-A50	Basalt	.4	A					.1	M		Abundant mud-filled vesicles
A51	Greenstone-basalt	.1	A					.3	M		
A52	Basalt	.1	A			2%		.1	M		
A54	Basalt	.3	A					.1	M		
A53	Basalt	.2	A				S	.1	M		
A43	Basalt	.1	A					.1	M		Mud-filled vesicles

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION 52 DREDGE _____ DESCRIBED BY H. DICK DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
A-56	Basalt	.1	A					.2	M-H		Mud filled vesicles
A-57	Basalt	.1	A					.1	M-H		" " "
A-60	Basalt	.1	A			tr	C	.2	H		
A-61	Basalt	.1	A					wp .1	M		Variolitic
A-62	Basalt	.2	A				tr	.1	M		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION 58 DREDGE 11 DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
7	Jointed pillow basalt	kg 19.2	A		4% Pg, 5% Ol	7%		mm .1		Light coating of calc ooze	Glassy palagonite rind
2	Glassy basalt	4.7	A		4% Pg(F)1% Ol	4%		<.1	F		Jointed palagonite rind
3	" "	.2	A		"	4%		"	F		"
4	" "	.2	A		"	"		"	F		"
5	Basalt	1.6	A		1% Pg, tr Ol	5%		.5	L		Palagonite rind
6	Glassy basalt rind	.2	A		(Med grained) 8% Pg, 1% Ol	tr		.1	L		Palagonite under coral have coral holdfast
7	Basalt	2.2	A		3% Pg, 3% Ol	5%		.1	F-L		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE 16 Mar 78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
STATION	62 Dredge 12										
	Basalt	12.7	A		4% Pg, 1% Ol	5%		.5	L	Palagonite rind, vesicles concentrated along perimeter	
STATION	63 Dredge 13										
22	Conglomerate	16.4	F-C	Basalt cobbles palagonite, CO_2 cement				1-3	M	Fresh vesicular basalt with moderate peripheral weathering	
2	Basalt	1.8	A		tr Pg (fine)	5%		.1	L-M*	*indicates perimeter weathered more severely	
3	Basalt	.6	A					<< .1	F		
4-6	Basalt	1.7	A		1% Pg(sm) tr Ol	7%		"	L-M*		Variolitic rind under palagonitic rind
7	Glassy basalt	.45	A		3% Pg	"	1%	"	L-M*		
8	Basalt	.3	A		3% Pg	3%		.1	L M*		Worm tubes
9	Basalt	.2	A		4%Pg,2% Px,1%Ol	8%	tr	<< .1	L		
10-12	Basalt	1.1	A		1%Pg(sm)tr Ol	7%		"	L-M*		
14,16,17, 18,20	Basalt	.8	A		"	"		"	"		
13	Basalt	.25	A						F		
15	Basalt	.15	A		"	12%		"	L		
19	Basalt	.44	A		"	10%		"	L-M		Minor palagonite rind
21	Vesicular basalt		A		tr Pg	7%	tr	"	L		Major "

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE Mar 78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
STATION	67 Dredge 14										
6	Basalt tube	22	A	concentrated	10% Pg (coarse) to rim & center	3%			F	Well developed rind, central cavity in tube	glassy + palagonite
1	Basalt	11	A		20% Pg (coarse)	3%		.1	F		Glassy rind
3,4,5	Basalt	.5	A		"	"		<< .1	F		
2,67X	Basalt glass	1.1	A		25% Pg (coarse)	4%			F-L		Glass rind of basalt
STATION	70 Dredge 15										
1	Basalt	12.9	A		3% Pg, 3% Ol	4%		.1	F		
2	Basalt	.7	A		1% Pg + 1% Ol	4%		"	F		
3	Glassy basalt	.9	A		" tr Ol	"		"	F		Palagonite & glassy
4	Basalt	.25	A		" "	"		"	F		
5	Branching coral	10g									Mn coated
STATION 71	Pillow basalt				1% Pg	1% Small			L	Recovered by	ANGUS camera frame

WHOI ROCK SAMPLE DESCRIPTION

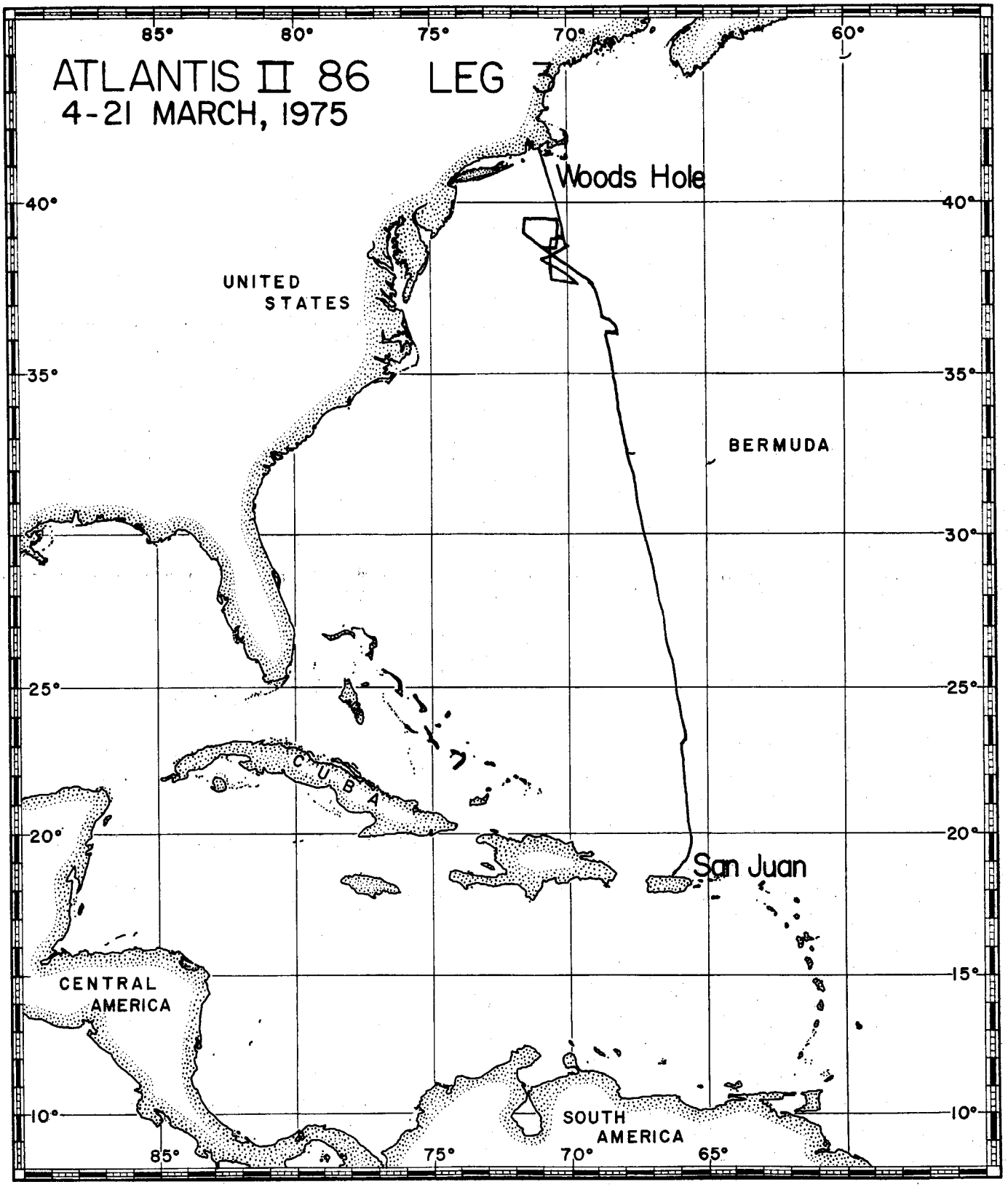
CRUISE AII 77 STATION 76 DREDGE 16 DESCRIBED BY BRODA/FARMER DATE Mar 78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1-10	Pillow basalt	kg 23	A		tr Ol Pg 10% (fine)	5-7%		mm << .1	F	Glass rind	Blocky jointing preserved on #8
11-27	" "	15	A		"	"		"	F		Blocky jointed
33	" "	3.9	A			10%			F		
35	" "	2.9	A			5-7%			F		
39	" "	4.5	A			"			F		
32	" "	5.2	A			"			F		
38	" "	6.1	A			"			F		
36	" "	6.3	A			"			F		
34	" "	5.1	A			"			F		
37	" "	11.8	A			"			F		
43	" "	8.6	A			"			F		
44	" "	23.2	A			"			F		
47	Glassy basalt	.5	A		Pg 1%	5%			F		Rim bound vesicles & phenos
29,46,51	Glassy basalt	1.5	A		Pg 5%	5%			F		Blocky jointed
31,52	Basalt	.7	A		(v.v. fine) 1% Pg+ tr Ol	3%			F		
48,49,55,71	Glassy basalt rim	2.2	A		tr Ol 55% Pg(M-C)	.5%			F	Palagonite found throughout	
50,53,54,59 60,65-67	Basalt glass	4.0	A		1% Pg in rims	2%			VF		Nice

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 77 STATION 76 DREDGE 16 DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
57	Basalt		A		5%Pg	2%			F		Glassy
62-64	Basalt	1.9	A		"	2%			F		Glassy
40	Pillow basalt	24	A		7% Pg	4%			F		Not slabbed
42	Pillow basalt	7.9	A		5%Pg, tr Ol	5%			F		
68	Pillow basalt	2.9	A		8-10% Pg	3%			F-L		Jointed, blocky
69	Pillow basalt	3.5	A		8-10% Pg	3%			F-L		" "
70	Pillow basalt	5.2	A		" "	3%			F-L		" "
41	Pillow basalt	14.1	A		" "	3%			F		" "


ATLANTIS II 86 LEG 7
4-21 MARCH, 1975
Woods Hole
San Juan
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA
85°
80°
75°
70°
60°
65°
40°
35°
30°
25°
20°
15°
10°

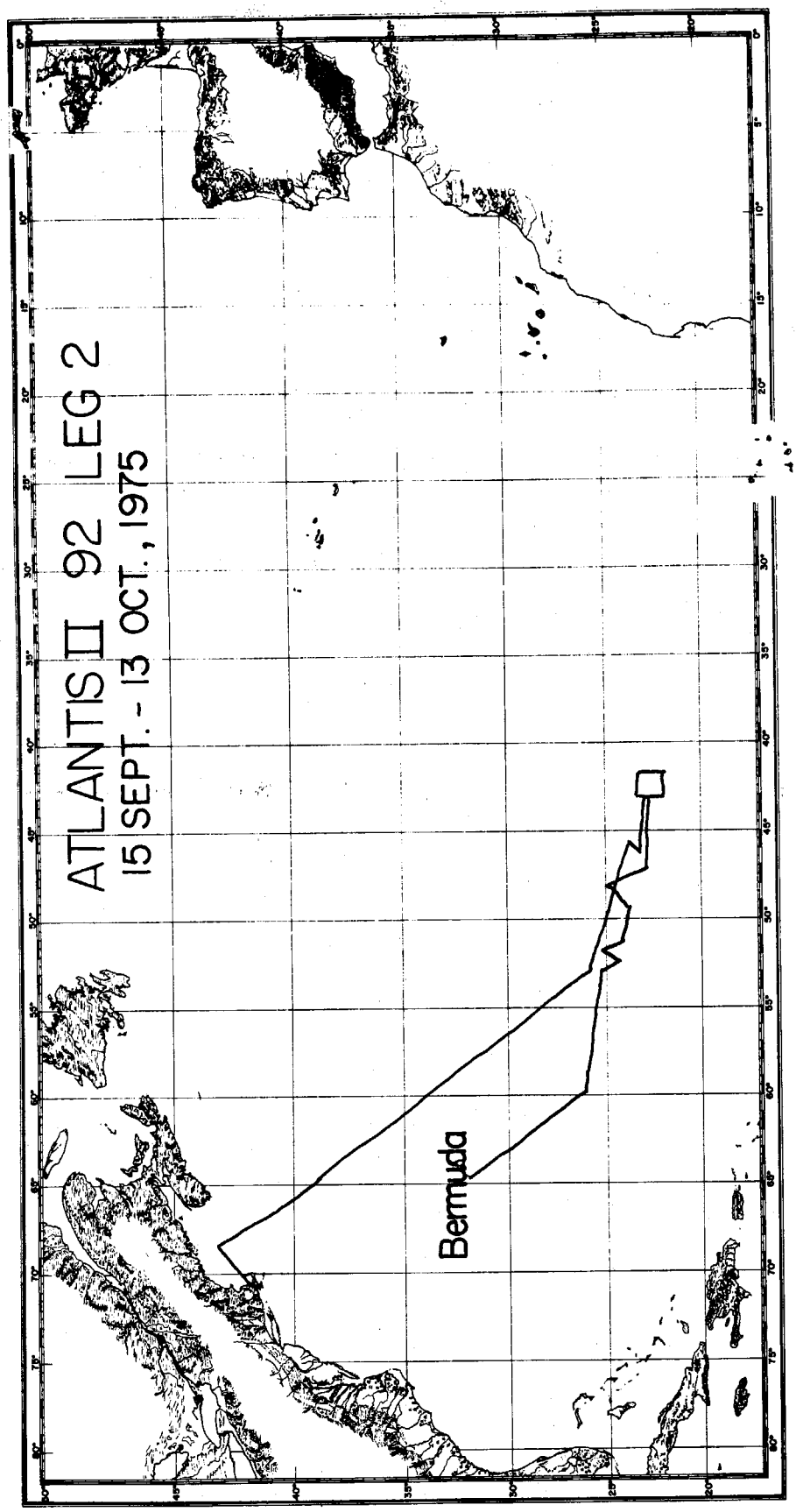
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	86	3	0417	0000	8	75 314	39 30.0'N	70 40.0'W	6	115.90		2460.	2480.	014K	6	0000	0	BEAM TRAWL
AII	86	3	0424	0000	8	75 316	39 27.0'N	70 28.0'W	6	115.90		2505.	2530.	011K	6	0000	0	41FT. TRAWL
AII	86	3	0432	0000	8	75 319	39 31.0'N	70 20.0'W	6	115.90		2350.	2450.	015K	6	0000	0	41FT TRAWL

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 86 STATION See below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE Mar 78

Sample #	Lithology	Wt. kg	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	STATION 417										
1	Glacial erratic	13.6									
	STATION 424										
424	Glacial erratics										
"	Sediment			Lithified and	burrowed					Non-calcareous	(Silt sized)
"	Clinker ash	11.4									
"	coal										
	STATION 432										
432	Sediment	14.8		Lithified and	cemented, mostly	worm	tubes				


ATLANTIS II 92 LEG 2
15 SEPT. - 13 OCT., 1975
Bermuda

********** STATION DATA RETRIEVAL **********
********** DATE: 08:52 SEP 21,'81 **********

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	92	2	0028	0000	8	7510 5 23	2.8'N	45 4.5'W	12	77.35	0004	2278.	1701.	065K	16	0000	0	
AII	92	2	0029	0000	8	7510 5 23	2.6'N	45 1.0'W	12	77.35	0005	2889.	2475.	100K	16	0000	0	
AII	92	2	0030	0000	8	7510 6 23	2.4'N	44 53.4'W	12	77.34	0006	3231.	3554.	037K	16	0000	0	
AII	92	2	0031	0000	8	7510 6 23	1.8'N	44 55.4'W	12	77.34	0007	3589.	3516.	160K	16	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 92 STATION 28 DREDGE 4 DESCRIBED BY BRODA/FARMER DATE Mar 78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
28-1	Basalt	2.2	A		7-10% large Ol?			0-1	F	Somewhat brecciated	Gravel to cobble sized basalts in a slightly calc cement
4	Basalt breccia	6.1	C		"			0-1	L-M		"
9	Basalt breccia	.4	C		"			0-1	"		"
7	" "	.5	C		"			0-1	"		"
2	Basalt	13.2	A					.5	F	Palagonite + calc ooze	
3	"	32.3	A					0.-.5	F		
6	"	.7	A		Pg 5% tr Ol	2%	1%	<.2	F		
8	"	.5	A		7-10% Pg	tr		.3	L		Coral holdfast
5	Basalt breccia	.6	C					.2	M		" "
unnumbered	Lithified burrowed calc ooze	9.5						.5-1			

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 92 STATION 29 DREDGE 5 DESCRIBED BY BRODA/FARMER DATE Mar 78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
1	pillow basalt	25.5	A		Pg 4% internal 10-12% rind	5%		tr	VF		up to 1 cm vitreous gass preserved
2	Basalt	6.5	A						F		
3	Basalt	4.4	A								
4	"	6.9	A		5-7% Pg, 2%small weathered Ol	1%		<.1	L		Highly variolitic
5	Pillow basalt	12.0	A		5% Pg	1%		tr	L	Worm tube	Nice glassy rind
6	Basalt	2.2	A		3% Pg, 3% weathered Ol	3-5%		<.1	L		
7	Jointed pillow basalt	6.8	A		4-7% Pg	"			L		Glassy rind
8	"	2.7	A		2% Pg internal 5-7% Pg rind	"		tr	L		" "
9	"	2.7	A		"	"		"	"		
10	Basalt	1.4	A		5% Pg	"			"		
11	"	2.0	A		"	1%		tr	L		
12	"	2.6	A		"	3-5%		.3	L		
	jointed basalts	19	A		2 phases of rocks a) 3-6% Pg. b) 8-12% Pg. 0-3% ol.	1-5%		tr	L		Externally quite similar small fragments
60	Basalt	1.4	A		25% Pg, 1% Ol.	1%		.3	L		Very large phenocrysts
69	Basalt	.2	A		30% Pg	tr		.1	L	Palagonite rind	Highly fractured phenocrysts
( )	Glass(basalt)	1.4	A		8-10% Pg				F	Palagonite rust overall	Vitreous

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 92 STATION 30 DREDGE 6 DESCRIBED BY BRODA/FARMER DATE Mar 78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
11	Glass slabs (basalt)	.5	A		2% Pg v. small	tr		<.1	VF	Palagonite surface	Vitreous quenched surface on both sides
15	"	.8	A		"	tr		"	"	"	"
16	"	1.2	A		"	"		"	"	"	"
17	"	1.4	A		"	"		"	"	"	"
20	"	.7	A		"	"		"	"	"	"
21,32,34	Glass slabs(basalt)										
37,38,39,42	small fragments	.8	A		"	"		"	"	"	"
22	glass tube(basalt)	.2	A		5-7% Pg medium						
19	basalt	.5	A		3% Pg (fine)	1%		.2	F	Palagonite	
18	basalt	.5	A		"	"		"	"		Nice glass rind
29	"	.7	A		1% Pg	3-5%		.2	"	Palagonite	
31	"	.1	A		tr Pg	"			"		Glassy rind
9	"	.3	A		3% Pg (fine)	"		tr	"		" "
numbered (little)	Glassy basalts	1.7	A		1% Pg	2-3%		tr	"	Palagonite	" "
6,2,44,23,12,4,35,43,3,8,33,27,19	in possession of Bill Bryan for morphological studies of pillow basalts.										
13	basalt	.7			1% Pg	3-5%		.2	F	Palagonite	

WHOI ROCK SAMPLE DESCRIPTION

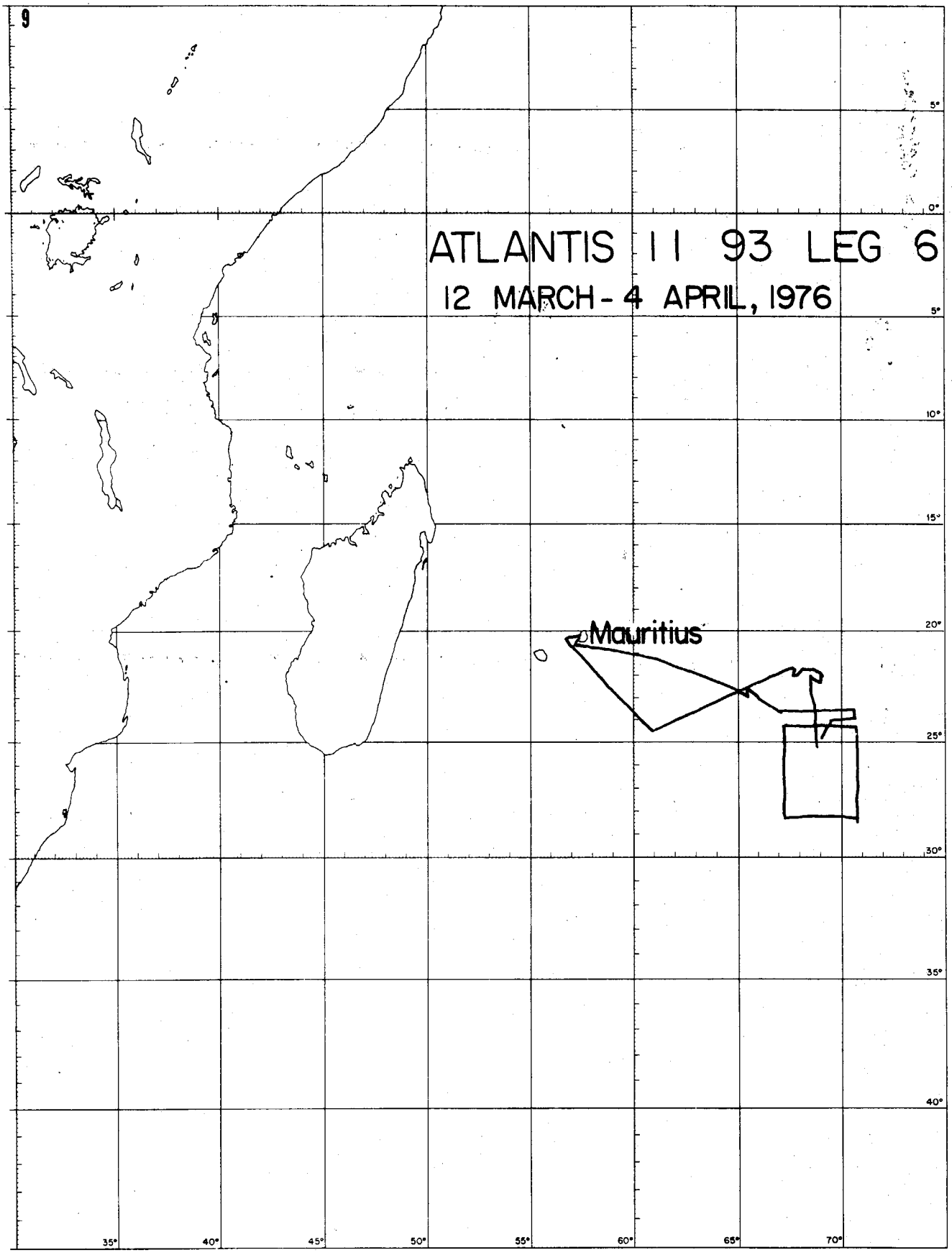
CRUISE AII 92 STATION 31 DREDGE 6 DESCRIBED BY BRODA/FARMER DATE Mar 78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
1	Basalt lava tube	63.6	A		5-7% Pg	1%		<.1	F	Thin palagonite rust on glassy rind	Pheno's in concentric outer zones
13	"	1.25	A		9-13%Pg(coarse)	1-3%		"	"		Vitreous glass cover 70-80% of surface
23	"	1.5	A		"	"		"	"		"
26	"	8.7	A		"	"		"	"		"
28	"	3.5	A		"	"		"	"		"
29	"	2.4	A		"	"		"	"		"
33	"	4.0	A		"	"		"	"		"
39	"	2.3	A		"	"		"	"		"
10,11,16 46	"	2.4	A		"	"		"	"		"
25,48,54	"	1.8	A		"	"		"	"		"
34	Basalt lava tube	2.5	A		2% Pg, conc. at periphery & very	" center		"	"		50% glass cover
27	"	5.4	A		"	.5%		"	"		Glass over 75% of tube
6-A&B	"	12.4	A		5% small, evenly distributed	4%			VF		Phenocrysts a bit more abundant in glassy rind
30	Basalt pillow fragments	6.8	A		5%-10% coarse Pg -restricted to rind zone	<1%		<.1	F		Glassy
19	"	2.5	A		"	"		"	F		
15	"	1.7	A		"	"		"	F		
7	"	1.5	A		"	"		"	F		
4	"	1	A			"					

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 92 STATION 31 DREDGE 6 DESCRIBED BY BRODA/FARMER DATE Mar 78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
42	Basalt pillow fragments	.5	A		5-10% coarse plag restricted to rind zone	1%		<.1	F		Glassy
37,52	" "	1	A		"	1%		"	F		"
3	" "	.8	A		3-10% variable in conc. & location	<2%		"	F		"
5	" "	.8	A		" "	"		"	"		"
32	" "	1.9	A		" "	"		"	"		"
Misc. small frags.	" "	4.1	A		" "	"		"	"		"
31	Basalt	16.5	A		med-10-12%Pg, coarse	2%		0	F	Thin palagonite rust	Cap fragment over gas chamber- very glassy with stalagtite bulbs
2	"	3.6	A		"	"		"	"	"	"
20	"	2.2	A		"	"		"	"	"	"
24	"	1.4	A		"	"		"	"	"	"
14	"	1.1	A		"	"		"	"	"	"
8,56	"	.8	A		"	"		"	"	"	"
17,9	"	.5	A		8-10% Pg	2-4%		"	"		Interior chips from gas chamber - no glass
35	"	2	A		"	"		.1	"	"	ropey pahoe-hoe glass structure


9
ATLANTIS II 93 LEG 6
12 MARCH - 4 APRIL, 1976
Mauritius
5°
0°
5°
10°
15°
20°
25°
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35°
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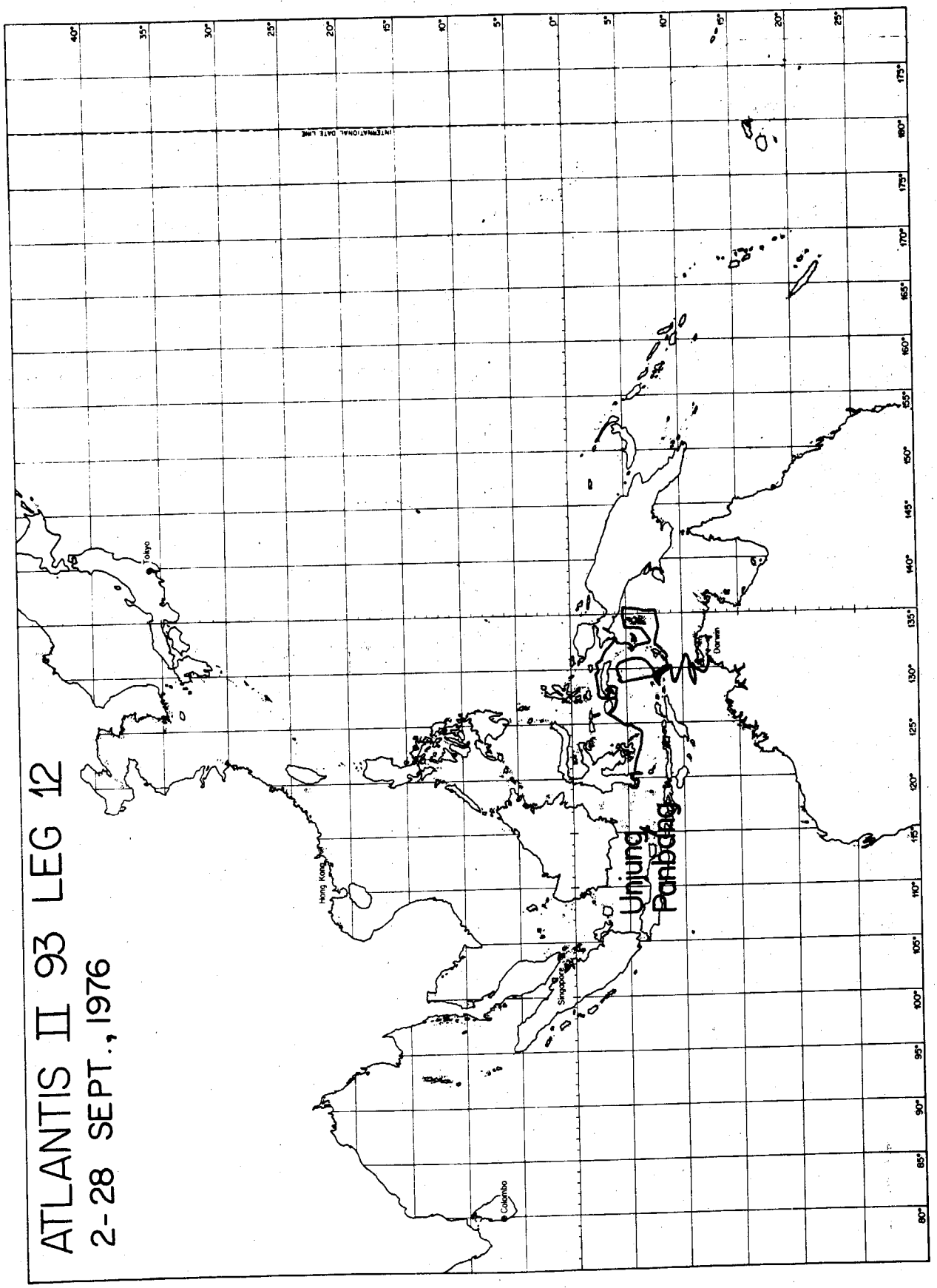

ATLANTIS II 93 LEG 12
2-28 SEPT., 1976
Tokyo
Hong Kong
Singapore
Colombo
Darwin
Ujung Pandang

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	93	6	0011	0000	8	76 317	24 58.8'S	70 .7'E	9	400.40	0010	3512.	3522.	104K	16	0000	0	
AII	93	6	0012	0000	8	76 317	24 40.5'S	70 2.7'E	9	400.50	0011	3445.	3323.	043K	14	0000	0	
AII	93	6	0014	0000	8	76 328	25 42.6'S	69 33.5'E	9	401.59	0013	3609.	3256.	086K	14	0000	0	
AII	93	6	0015	0000	8	76 328	25 46.8'S	70 11.0'E	9	400.50	0014	3521.	3097.	024K	16	0000	0	
AII	93	6	0018	0000	8	76 330	25 35.5'S	69 55.8'E	9	401.59	0016	3865.	3079.	040K	16	0000	0	
AII	93	12	0044	0000	8	76 919	5 20.6'S	131 54.4'E	2	322.51	0018	1551.	695.	500G	3	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 93 STATION 11 DREDGE 10 DESCRIBED BY FARMER/BRODA DATE Feb. 79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
11-48	Pillow basalt	13.5	A						VF		Remarkable glassy margin
3	" "	5.8	A		tr Pg	3%			VF		"
5	Lava tube basalt	12.8	A		"	3%			VF		"
11	Glassy basalt	.8	A		"				VF		"
4	Pillow basalt	8	A		"	5%			VF		Ropey glass in interior tube
18	Basalt	2.0	A		"				VF		
83,59	Basalt Very glassy	3.0	A						VF	Interior is highly contorted fragile webs around large gas pocket	
58,7,61, 6,88	Basalt	2.2	A						VF	Fragile webs (interior of above rocks)	
57	Glass	0.2	A						VF	Remarkable chunk of pure vitreous glass (Hope Diamond of basalts)	
79,103	Glassy basalt	.6	A		tr Plag				VF	Very sharp contact between glass and interior basalt	
Numbered small pieces	Glassy basalt	61	A	Basalts with gem quality, sparkling glass,		generally no phenocrysts					
				(occasionally trace of Plag.)		and vesicles			vary	from none to	3%. Very
				fresh, no Mn, Delightful							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 93 STATION 12 DREDGE 11 DESCRIBED BY FARMER/BRODA DATE Feb 79

Sample #	Lithology	Wt. Kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
12-14	Glassy basalt	1.7	A		7% Plag			tr	F	Rusty palagonite margin.	Mn only in interior
4	" "	.4	A		"			"	"	"	
5	" "	1.6	A		5% Plag	5% V.small		Tr	"	"	
6	Basalt	.3	A		"	tr		tr	"		
8	Glassy basalt	.7	A		7% Plag	3%		.5	"	Rusty palagonite margin	Mn only in interior
15	" "	4.2	A		"	3%		.5	"	"	"
9	" "	1.2	A		"	3%		.5	"	"	"
10	" "	1.8	A		10% Plag	tr				"	
11	" "	3.4	A		5% Plag	5%		.1	"		
13	" :	2.3	A		7% Plag			5	"	Rusty palagonite margin	5 mm of Mn (fuzzy) where present on interior
16	Pillow basalt	25	A		8% Plag	tr		.2	"	"	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 93 STATION 14 DREDGE 13 DESCRIBED BY BRODA/FARMER DATE Feb 79

Sample #	Lithology	Wt. (kg)	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn (mm)	We	Alteration	Remarks
2	Basalt	.4	A					1	M-H		
4	Diabase	.2	F	Ol,Pg, Px				.5	M		
6	Basalt	.3	A		4% Ol 4% Pg			.5	M-H		
1	Basalt	.5	A					1	LH	Strange isolation of oblate basalt prisoners in a heavily weathered matrix	
8	Basalt	.2	A		tr Ol		C	.2	M	Heavily veined	
9	"	1.0	A		3% Pg, 2% Ol			.2	M		
11	Glassy basalt	.2	A		1% Pg		tr	1	L	Slightly variolitic	
13	Basalt	.9	A		5% Pg, tr Ol		tr	tr	H-L		Heavily weathered surface rim
20	Basalt	.1	A				tr	.3	M		
24	Diabase	.1	F	Ol, Pg, Px				1	M		
25	Basalt	.2	A		1% Pg, 2% Ol		tr	1.5	M		
7	"	.2	A			2%		1-2	L		
27	"	.2	A		2% Pg, 2% Ol	2%		.5	L		
3,16,18	Mylonite	1.0						.5-1.0	V VH		
10,19,30	"	1.7							"		
Unnumbered	Unslabbed samples	79		Numerous generally small pieces, similar to above descriptions; estimate ~55% basalts (Medium-very heavily weathered) & diabases, ~45% mylonites							

WHOI ROCK SAMPLE DESCRIPTION

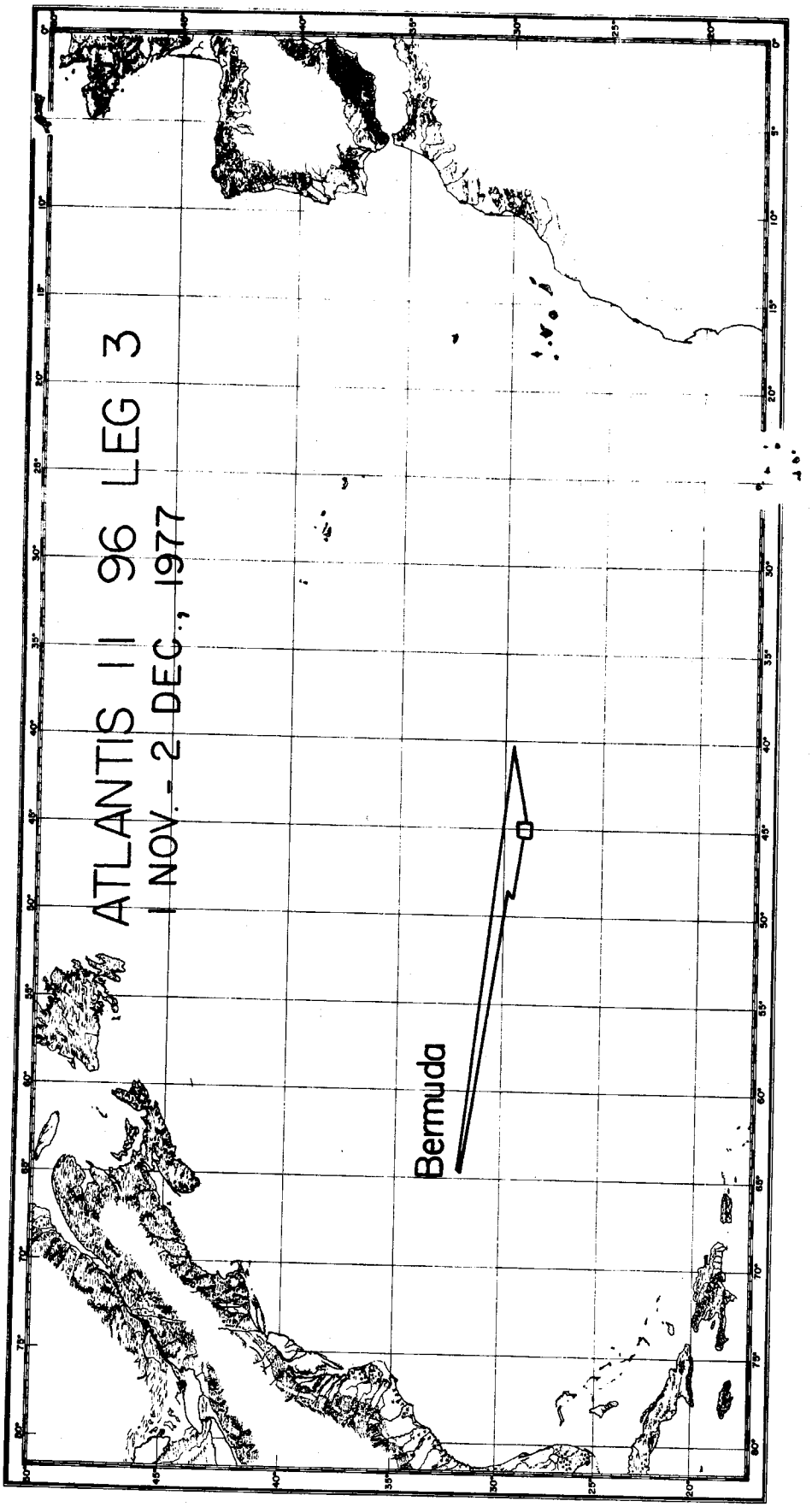
CRUISE AII 93 STATION 15 DREDGE 14 DESCRIBED BY BRODA/FARMER DATE Feb 79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
2,4,5,6,10 16-20,24,26	Basalt crust	kg 18.3	A		8-10% Plag	1.5%		mm	F	Glassy rind w/rusty surface	Appears to have once been one piece
1,12,13,15, 22,3	Ropey glass fan (crust of basalt)	3.0	A		2% Plag				F	Rusty palagonite on both sides	Pure,vitreous glass erotically contorted
7,8	Glassy basalt	1.5	A		4%Pg,tr Ol	3%			VF	of pieces	
9,21,23	Basalt	1.3	A		4% Pg	tr			VF		Lava tubes, mostly glass hollow central tube
27	Glassy basalt	.7	A		8-10% Pg,tr Ol	1-2%			VF	Rusty palagonite surface	Abundant needle-like plag.
68	Ropey glass (basalt)concretion	.5	A		needle-like 5% plag	3%	(in center)	Tr	F	"	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 93 STATION 18 DREDGE 16 DESCRIBED BY BRODA/FARMER DATE Feb. 79

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
1	Basalt	1.7	A		6%Pg, 1%Ol	4%		.2	F	Palagonite rind	Keystone from pillow
2	Basalt	3.3	A		2% Pg, tr Ol	4%		.2	F	"	Glassy under palagonite
3	"	2.3	A		8% Pg, 1% Ol	2%		.2	F	"	
4	"	4.7	A		tr Plag, Ol	3%		.4	F	"	
5	"	4.2	A		2% Pg, tr Ol	3%		.4	L		
6	"	6.0	A		" "	3%		.2	F		
7	Glassy basalt	9.3	A		" "	tr		1-2	F	Palagonite rind	
8	Basalt	6.0	A		4% Pg, tr Ol	5%		.4	F		
9	Basalt	2.4	A		2% Pg, tr Ol	tr		1-2	F		


ATLANTIS II 96 LEG 3
1 NOV. - 2 DEC., 1977
Bermuda

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
AII	96	3	0001	0000	8	7711 7	23 48.3'N	46 34.5'W	0	77.36	0001	3918.	2969.	106K	19	0000	0	
AII	96	3	0002	0000	8	7711 8	23 50.0'N	46 34.3'W	0	77.36	0002	4569.	3462.	003K	19	0000	0	
AII	96	3	0003	0000	8	7711 8	23 46.5'N	46 34.5'W	0	77.36	0003	3022.	2782.	011K	19	0000	0	
AII	96	3	0004	0000	8	7711 8	23 51.1'N	46 23.3'W	0	77.36	0004	5095.	3326.	063K	19	0000	0	
AII	96	3	0006	0000	8	7711 9	23 52.9'N	46 15.8'W	0	77.36	0006	5505.	4798.	104K	19	0000	0	
AII	96	3	0007	0000	8	7711 9	23 55.1'N	46 14.5'W	0	77.36	0007	4259.	3573.	046K	19	0000	0	
AII	96	3	0008	0000	8	7711 9	24 .7'N	46 11.2'W	0	77.46	0008	2860.	2212.	173K	19	0000	0	
AII	96	3	0009	0000	8	771116	23 36.5'N	44 28.7'W	0	77.34	0009	3982.	2737.	500G	19	0000	0	
AII	96	3	0010	0000	8	771117	23 38.3'N	44 29.2'W	0	77.34	0010	2578.	2287.	029K	19	0000	0	
AII	96	3	0012	0000	8	771117	23 31.1'N	43 54.4'W	0	77.33	0012	4039.	3326.	088K	19	0000	0	
AII	96	3	0013	0000	8	771118	23 36.0'N	44 57.9'W	0	77.34	0013	6180.	4049.	096K	19	0000	0	
AII	96	3	0014	0000	8	771118	23 36.2'N	45 1.6'W	0	77.35	0014	3611.	2700.	134K	19	0000	0	
AII	96	3	0015	0000	8	771118	23 32.7'N	45 5.4'W	0	77.35	0015	2044.	1800.	031K	19	0000	0	
AII	96	3	0016	0000	8	771124	23 47.5'N	45 49.9'W	0	77.35	0016	4450.	3762.	079K	19	0000	0	
AII	96	3	0017	0000	8	771124	23 43.8'N	45 58.7'W	0	77.35	0017	3800.	3478.	009K	19	0000	0	
AII	96	3	0018	0000	8	771124	23 31.5'N	44 49.1'W	0	77.34	0018	3686.	3573.	005K	19	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 1 DREDGE 1 DESCRIBED BY G. Thompson DATE Nov 77

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	gabbro	6	M-C					mm 1-2		Some alteration and recrystallization	
2	"	5	C					.5-1		some weathering & slight alteration	(chlorite?)
3	Peridotite	14		heavily serpentinized				x		Small remnants of original rock	
4	gabbro	9		Ol-Px-plag						weathered - slight serpenization	
5	gabbro	7								partally serpent'ized	
6	"	4								badly weathered & serpent'ized	
7	gabbro	5								" " serpent'ized	
8	gabbro	2		numerous small pieces (1-4")						"	w/small amount of consolidated ooze
9	calc ooze	10		large boulder consolidated ooze with Fe/Mn staining & worm burrows							
10,11	" "	3		small cobble consolidated ooze Fe/Mn stain							
12	gabbro	3								badly weathered & serpent'ized	
13	gabbro	4		good serp. vein						" "	"
14	."	4						10-20		serpent'ized	
15	Serpentinite	1		complete replacement of gabbro - good example of serpent'zation							
16	gabbro	1		partially serpent'ized						badly weathered	
17	gabbro	1		"	"						
18,19	gabbro(?)	8		small cobbles						serpent'ized	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 1 DREDGE 1 DESCRIBED BY G. Thompson DATE Nov 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
20	Fe/Mn crusts	1									
21	gabbro	2		some alteration & serpentine							
22,24	serpentinite	3									
23	gabbro	1		mostly serpentinized						small Px relict?	
25	gabbro	.2		px?or serp? crystal							
26	gabbro	2		largely serpentinized							
28,29	gabbro	1			"						
30,31,32	"	3		partially serpent'ized							
33	"	1			"						
34	"	2	C							some weathering	
35	"	2	F-M							" "	
36	"	1		Px?rich						slight serp.	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 2 DREDGE 2 DESCRIBED BY G. Thompson DATE Nov, 1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg									
1	Gabbro/peridotite	.5		Badly serpentinized						Thick Fe/Mn crust, badly weathered	
2	" "	.3		" "						"	" "
3	Gabbro?	1		Partially serpentinized						Weathered	
4	Anorthosite?	.3		White (fsp. rich?)						"	
5	"	.3		" "						"	
6	Gabbro(?)	.3								"	
7	Fe/Mn crusts	.5		Thick							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 3 DREDGE 3 DESCRIBED BY G. Thompson DATE Nov. 1977

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Ooze	2		8 pieces	lithified ooze	with	Mn	crust			
2	Fe/Mn crust	1		'							
3	Gabbro	2		Serpentinized				20mm		Highly weathered	
4	"	.7						10		Heavily weathered	
5	"							✓		Weathered and partially serp.	
6	"	.5						✓		"	
7,8,9	"	3		partially serp.				✓		heavily weathered	
10,11,12	"	2		" "				✓		" "	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 4 DREDGE 4 DESCRIBED BY G. Thompson DATE Nov 1977

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Sponge			with long spicules							
2-5	lithified ooze	9.5		4 bags of lithified ooze with		sparse		FeMn		coatings and some good layering	
6	Basalt	5	A		Plag					weathered	
7	Basalt	4	A							"	
8	Basalt	9	A							glass margin to palagonite; outer flow of pillow	
9	Basalt	12	A							Lightly weathered with fresh center	
10	Basalt	2		Bag of 7 small	weathered basalts						
11,12	Basalt	2	A							weathered, palagonitized glass margin	
13,14,15	Basalt	2	A							" ; light FeMn on #15	
16	Basalt	2	A		plag					weathered	
17	Basalt	2	F	coarser grained						"	
18	Basalt	3	A							" ; small fresh zone	
19	Basalt	3	A		plag	x					
20	Basalt	.6	A							weathered; but with fresher core	
21	Basalt	.2	A							" ; smaller fresher core	
22,23,25	Basalt	2	A							weathered	
24	Basalt	.5	A							weathered; light FeMn coating	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 6 DREDGE 6 DESCRIBED BY G. Thompson DATE Nov 1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Basalt	kg 9			Abundant plag		Slight		L	glass margin - slight palagonite	
2,3	"	4		Several small pieces						Palagonized margin- very little FeMn	
4	Sediment	.2		3 pieces consolidated ooze						Embedded palagonite fragments	
5-17	Basalt	7		Pillow fragments						Palag. margins, slight FeMn coating	
18-20	"	1.5								Palag. glassy margin; ropey lava	
21	"	.2								" " " ; blocky lava	
22-35	"	7		Pillow fragments						No margin; small worm tubes on #33	
36-42	Pillow basalt	20			Plag					Partly palag. glassy margin; weathering governed by cracks	
43	" "	.2								No margin	
44	Basalt	1			Plag, rich interior					Good glassy margin; toothpaste extrusion; gas cavity @ center	
45	Pillow basalt	2		Several small fragments							
46	" "	2								Glass margin	
47,48	" "	2								No margin	
49,50	" "	1								Glass margin; flow area	
52,53,58, 60,61	" "	4								Palag glass margin	
51,54-57, 59	" "	6								No margin	
62	Basalt	8		Coarse grained						Palag glass margin	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 6 DREDGE 6 DESCRIBED BY G. THOMPSON DATE Nov 1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
63	Basalt	kg 3			plag rich	x					
64,65	"	8			plag (coarse)						
66,67	"	4									
68	"	6			lg plag	x					flow bands
69	Sediment	.2								lithified ooze	clay, palagonite

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 7 DREDGE 7 DESCRIBED BY G. Thompson DATE Nov 1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Basalt	kg 13			large plag, oliv					Good glass margin; minor palag; little FeMn	
2-5	Basalt	1.5			plag					Small pillow frag, glassy margin w/palag	
6	Basalt	14			"				L	no margin	
7-11	Basalt	2			"					Angular frag.,	no margin
12	Basalt	9			Plag & few oliv				L	Angular pillow	frag
13	Basalt				"				L	"	;interesting flow patterns
14	Basalt	4							L	"	;small glass margin
15	Basalt	.5			Plag				L	"	
16	Basalt	1				x			L	"	
17	Basalt	1			minor plag				L	"	
18	Basalt				fresh oliv some plag				L	"	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 8 DREDGE 8 DESCRIBED BY G. THOMPSON DATE Nov 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	basalt	kg 6			plag rich					fine grained	
2	"	12								" "	good glass margin
3	"	12			large plag					palag margin	
4	"	6		numerous small angular frags						FeMn stained	
5	"	1.5		very small frags as #4							
6	breccia	.5		consolidated ooze with palag & rock fragments							
7-20	basalt	12		small angular basalt frags						1 mm FeMn coating	
21	"	3			plag					good glass margin	
22-24	pillow basalt	1.5								good glass margin, some palag. FeMn staining	
25-28	" "	2								poorly developed glass	
29	basalt	3		fine grained						slight glass, angular	
30	pillow basalt	10			abundant plag					palag margin	
31	basalt	4								slight FeMn stain	
32	"	2								good margin	
34	"	3		angular frag						FeMn stain good slab of fine/ white ooze	
35	"	3				x				palag margin	
36-40	"	10		angular frags plag						palag margin	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 8 DREDGE 8 DESCRIBED BY G. Thompson DATE Nov 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
41	basalt	3								palag margin	
42,47,48	"	4		fine grained	few plag					light FeMn coat	
43-46	"	2		"	"					" "	"
49	pillow basalt	5								palag margin	
50-52	basalt	7			good plag					FeMn coated	
53	basalt				" "					" "	
54	"	5			few lg. plag tr oliv				L		
55	basalt	3		slightly coarser grained							
56-58	"	4		angular frags						no FeMn; slight	greasy feel to surface
59-60	"	20		numerous angular frags							
61	"	5		" small	frags					palag margin	
62	"	.5		small pebbles							
63	sediment	.5		small pieces	lithified carbonate						
64	basalt	6		numerous angular frags						palag margin	
65	basalt	1		angular frag							
66	basalt	1.5			few plag					palag margin	
67	basalt	2			plag					slightly coarser grained	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 8 DREDGE 8 DESCRIBED BY G. THOMPSON DATE Nov.1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
68	basalt	1.5			plag (>1 cm)	x					
69	"	.5			plag					glass margin, no palag.	
70-72	basalt/diabase	3							L	coarser grained	
73	basalt	2								weathered	
74-77	"	1								glass margin, partly palag	
78,79	"	2								palag margin	
80	"	2							L		
	NOTE: #1-53 were from top half of dredge and were mostly FeMn coated basalt frags.										
	#54-80 were from lower part of dredge and are mainly small angular light colored (little FeMn) fragments - talus slope?										

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 9 DREDGE 9 DESCRIBED BY G. Thompson DATE Nov 1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Gabbro	1 kg		Altered, starting to chlorite						Fe/Mn crust	
				px still good							
				good layer division between							
				play and oliv/px minerals							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 10 DREDGE 10 DESCRIBED BY G. Thompson DATE Nov 1977

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Basalt	4			Some plag			mm .5		fractured and chloritized	
2	Metabasalt	1.5						2-3		quartz veins	
3	Gabbro	1.5						"		well altered	
4	Basalt	2			Few phenos			"		chloritized	
5	Gabbro	1.5						"		Well altered	
6	Basalt	.8						10		Badly weathered	
7	Basalt	10						5-10		" "	
8	FeMn crust	.2									
9	Cobble	.2		FeMn coated cobble							
10	Sediment	10		Lithified ooze; small FeMn stain							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 12 DREDGE 12 DESCRIBED BY G. THOMPSON DATE Nov 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	serpentine	3		serpentinized gabbro(?) breccia						calcite/sed. infilling	
2	altered gabbro	1		few px left				x		calcite infilling	
3	gabbro	1.5								serpentinized, weathered	
4	altered gabbro	2								large calcite/ serp vein	
5	" "	1		px? rich, weathered oliv						banded 'flow' texture - originalo due to alteration	
6	" breccia	1.5		sed. & calcite infilling						serp/chl'ized finer grained gabbro	
7	cobble	1.5		lt. colored fels rich gabbroic rock						v. little Fe-Mn	
8	basalt	3						1mm	VH	V. friable; chl-smectite?	
9	serpentine	4		little px left						sed & breccia vein infilling breccia on surface	
10	basalt/gabbro	2		rounded boulder				10	VH	like #8	
11	gabbro	2							X	Serp not pervasive	
12-14	gabbro/basalt	12		as #10					VH	heavily weathered	
15	gabbro	1.5							x	less altered than #12-14	
16	"	1.5							H	weathered & serp'ized	
17	"	2		Px rich						less altered	
18	basalt/gabbro	9							H	altered, thick FeMn crust	
19-20	gabbro	4							H	serp'ized	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 12 DREDGE 12 DESCRIBED BY G. Thompson DATE Nov 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
21	gabbro	2		numerous small weathered frags							
22	breccia	.8		altered serp'ized gabbro & sediment							
23	gabbro	1.5							VH		
24	?	1.5		Thick FeMn coated fragments (3)							
25	gabbro	2							VH		
26-28	altered gabbro			numerous small fragments							
29	gabbro	15						X	H	large boulder	
30	gabbro	15						X	H	large boulder	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 13 DREDGE 13 DESCRIBED BY G. THOMPSON DATE Nov 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	gabbro	kg 6		coarse grained mostly feldspathic				mm		some layering and grain size variations obvious	
2	"	4		finer grained	feldspathic					coarser grained layer	
3	altered gabbro	1.5		feldspathic						qtz-amphibole(?)metam. vein	
4	gabbro	4		fine-grained	feldspathic	layer	over		coarser	px-oliv layer;px-oliv weathered	
5	"	3	C							chloritization well advanced	
6	"	2	M	feldspathic						slight chl'tion	
7	metagabbro	2	C							chl (serp) well advanced	
8	gabbro	3		feldspathic						slight chl.	
9	metagabbro	4								advanced stage vein alteration (qtz-albite?)	
10	gabbro	1.5		feldspathic	- finer					slight layering	
11,13,15,17	gabbro	6								chloritized	
12,14	gabbro	2		feldspathic						#12 outer weathered rim	
18	diabase/basalt	1		finer grained						chl'ized	
19	metabasalt	.5		fine grained	(albitized?) feldspar					"	
20,21	metabasalt/diabase	2		medium grained						"	
22	metabasalt	2		fine grained						"	
23	"	2		v. fine grained						"	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 13 DREDGE 13 DESCRIBED BY G. THOMPSON DATE NOV. 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
24,25	metabasalt/ diabase	kg 2								highly altered, chl'ized	
26	basalt	1		finely veined						chl'ized - weathered	
27	metagabbro	.5									
28,30	gabbro	1.5	C	light colored						chl'ized	
31	metagabbro	1	VC								slickensided
32,33	gabbro	1.5	C								
34	metagabbro	.3								qtz vein	
35-38	metabasalt	2		fine-grained							
39	metabasalt	.5		lg. feldspar pheno's (albitized?)						chl'ized	
40,41	diabase/ metabasalt	5		numerous small pieces							
42,43	gabbro/ metagabbro	2		numerous small pieces							
44	"	10		some larger pieces							
45,46	gabbro	25	C	larger pieces							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII - 96 STATION 14 DREDGE 14 DESCRIBED BY G. Thompson DATE Nov. 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Basalt	3		Med. grained		X		No		Outer weathered rim, bluish-green clorite in vesicles	
2, 3	Pillow basalt	6			Plag - small	S				Glass margin - slight palag.	
4	Basalt	2				X			L	Large circular vesicles showing showing layered infilling	
5	"	2						<1 mm		Glass margin - some weathering	
6	"	2				X				Weathered cobble	
7	"	4				X				Fresh? interior	
8	"	3		Med. grained				X		Weathered rim, fresh interior	
9	"	3			Few plag				L		
10	"	2								Fairly extensive cracking and weathering	
11, 12	Diabase/basalt	20	M-C		#12(some pheno's)				L	Minor chl'zation	
13	Gabbro	1								" "	
14	Basalt	2	M								
15	Diabase/gabbro?	1.5								Completely altered bluish-green chl'ized	
16, 17	Basalt	3							M		
18	"	4			few pheno's					Glass margin (palag.)	
19	" ?	1.5		Heavily altered	- qtz. pyrite,	chlorite,		epidote		(?) - slicken-sided surface	
20, 21	Altered gabbro	2		#20 feldspathic							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII - 96 STATION 14 DREDGE 14 DESCRIBED BY G. Thompson DATE Nov. 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
22	Basalt	1.5							L	chill margin-intrusive flow or dike?	
23	"	1			few pheno's	tr				glass margin	
24	"	1.5				tr					fragments
25, 27	Gabbro	1.5								chl'ized	
26	Basalt	.2								outer altered	breccia & margin chl'ized
28	Basalt/diabase	1.5		med - grained						altered	
29, 30	Basalt	3							L		
31	"	2			some pheno's	X					
32, 35	"	2		chl'ized, large albite? crystals							
33	Gabbro	1	F							altered	
34	Basalt	1		numerous pieces						highly chl'ized and altered	
37	Basalt	2		several fragments						palag. glossy margins	
38, 39	Basalt/diabase	30		numerous fragments						no obvious metamorphism	
40, 41	" "	10		numerous altered slicken-sided fragments							
42	Gabbro	1		4 small pieces							
43	Basalt/Diabase	1.5						X			

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII - 96 STATION 14 DREDGE 14 DESCRIBED BY G. Thompson DATE Nov. 77

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
44 - 46	Basalt	5						X	L		
47	"	1								highly chl'ized	cobble
48 - 51	"	2								glass margin -	slight palag.
52, 53	Basalt/diabese	2								FeMn stained	
54		.2		small piece ch	'ized - qtz - epidote		(?)		vei	ning	
55	Basalt/diabese	3								3 angular frags	- FeMn staining

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 15 DREDGE 15 DESCRIBED BY G. Thompson DATE Nov, 1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Breccia/basalt	kg 1		well developed	chl-albite?					Thin FeMn	
2	Basalt breccia	.5								Chl'ized & weathered	
3	Basalt	1		chl'ized						Qtz & epidote veining	
4	Basaltic breccia	.6		Glassy						Heavily weathered & altered	
5	Basalt & breccia	1		chl'ized						Albite/chlorite developed	
6	Basalt	1		Palagonitized						Cooling nuclei well developed outer weathered zone	
7	Basalt	1		Chilled margin						Weathered (brown-red) greasy outer texture	
8	Basalt	.2		Outer glass not palag.						Well developed cooling nuclei	
9	Basalt	3		Numerous chl'ized frags							
10	Basalt	3		Numerous pieces						Poorly preserved & palag margins	
11	Basalt	4								As # 10 but no margins	
12	Breccia	2		Sed/basalt breccia						Much palag.	
13	Basalt	5		Chl'ized & albitized							
14	Basalt breccia	2		In sediment -	few pieces with glass/palag.						
15	Basalt	1		Chl'ized & weathered							
16	Basalt	1		Palag. margin							
17	Basalt	1		Numerous small	pieces					good glass/palag margins	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 15 DREDGE 15 DESCRIBED BY G. Thompson DATE Nov. 1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
18-20	Basalt	1		Chl'ized - bluish green calc						#19 slickensides, #20 good crystals	
21	Basalt	.2		Palag						consolidated ooze on side	
22	Basalt	.1		"						secondary qtz-calcite? crystals	
23	Basalt	1		Several small pieces							
24	Basalt	.5								calc ooze attached	
25	Basalt	.2								good secondary crystals on surface qtz/calcite?	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 16 DREDGE 16 DESCRIBED BY G. Thompson DATE Nov 1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg									
1	Basalt	5		Chl'ized							
2	Basalt	4		"						Some vein infilling	
3	Metabasalt	9		" ; esp.	cooling margins					" " "	
4	"	9		Chl'ized							
5,6	"	8		" ; many small pieces						#6 FeMn stained	
7	Metabasalt/ diabase	9		"							
8	Basalt	5		" ; numerous angular pieces							
9	Basalt	.2		2 small FeMn coated frags							
10	Basalt	.2		Chl'ized; qtz-epidote on surface							Unsplit
11	Metabasalt	.5		" ; coarse grained							Unsplit
12-15	Metabasalt	4		"						#14 good qtz rich vein, unsplit	
16	"	1		epidote rich? veining							Unsplit
17	Gabbro	4		Broken badly weathered pieces						Some chl'ized,	unsplit
18	"	2		px rich						As #17	
19	Metabasalt	.2		lighter colored surface							Unsplit
20	Basalt	.2								Palag rich, weathered, FeMn stain	
21-22	Metabasalt	1								lg. qtz.(calcite?) crystals on surface	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE AII 96 STATION 16 DREDGE 16 DESCRIBED BY G. THOMPSON DATE Nov 1977

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
23,25-27	Metabasalt	7		highly chl'ized							
24	"	1		" "						epidote? rich veins	
28	"	2		" "	Plag?					qtz & albite development	
29	"	1		" "						lt green veining at margin	
30	"	1.5		coarser grained	oliv relicts?						
31,32	"	2		chl'ized & veined							
33	"	1		" & sheared							
34	"	2		chl'ized							

WHOI ROCK SAMPLE DESCRIPTION

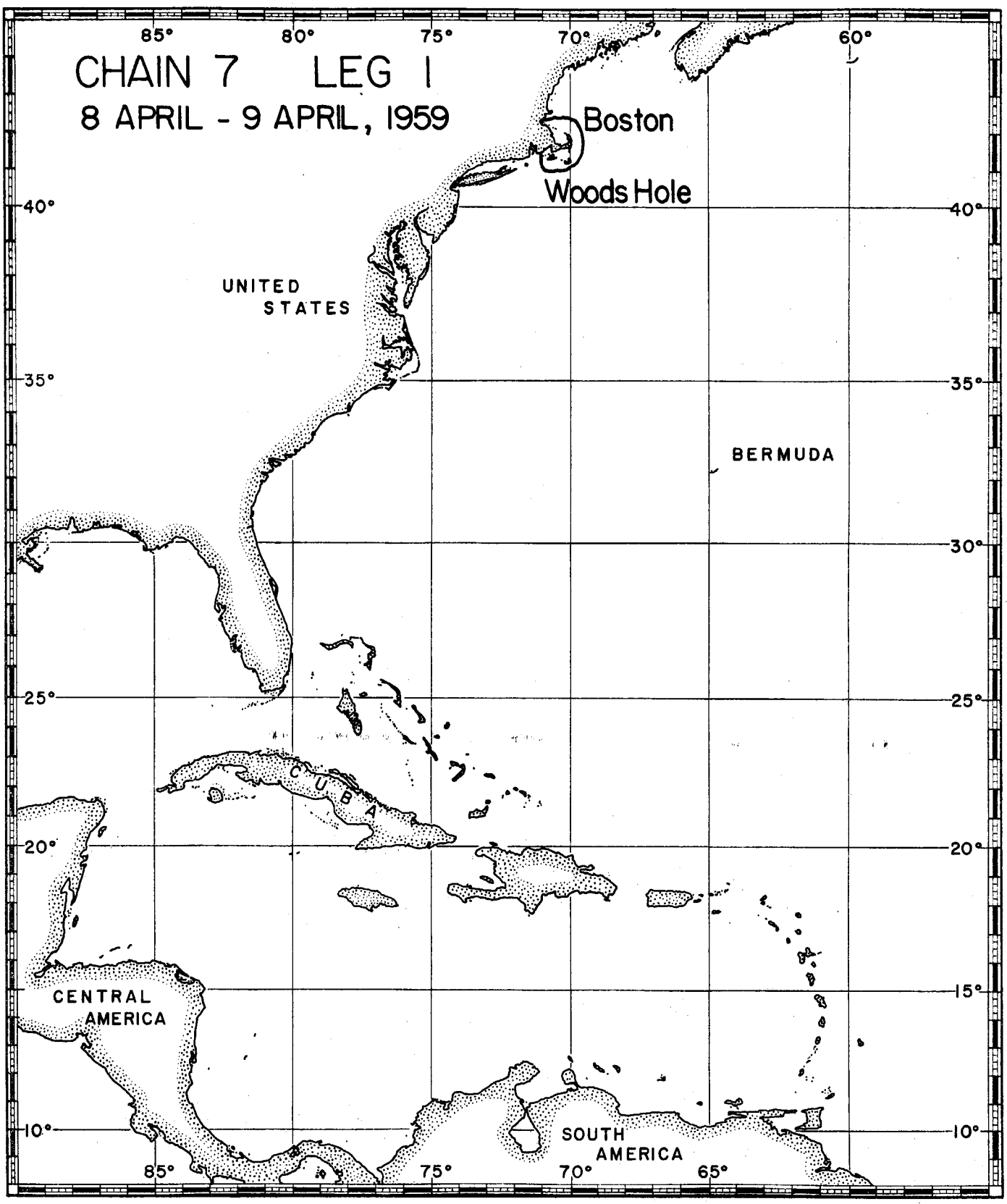
CRUISE AII 96 STATION 17 DREDGE 17 DESCRIBED BY G. Thompson DATE Nov. 1977

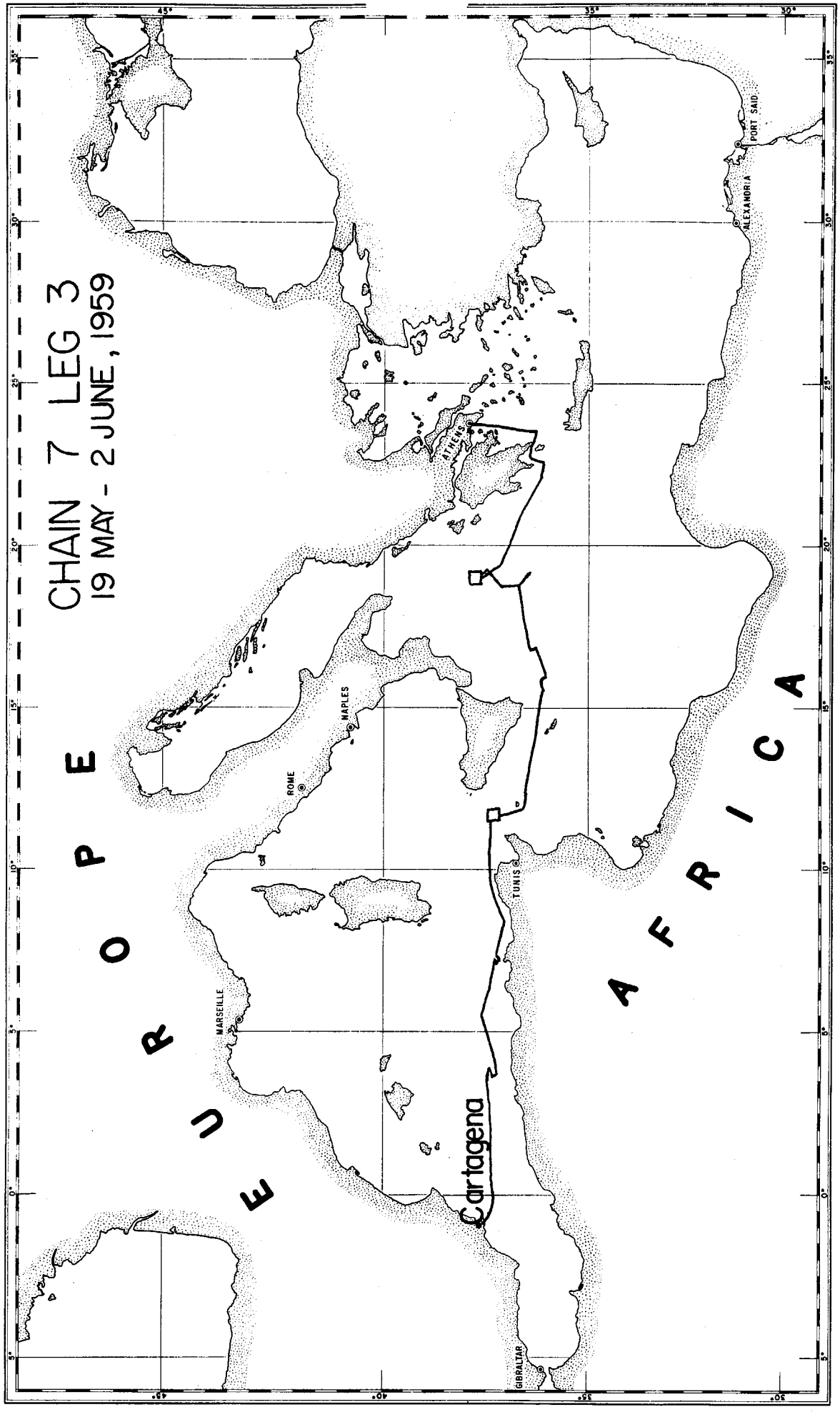
Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Gabbro	8 k		Remnant	Fsp & px					Slicken sided, weathered & altered heavily veined and fractured Fe Mn coating	
2	Metabasalt	1k		Small altered fsp (albite?) abundant						chlorized	

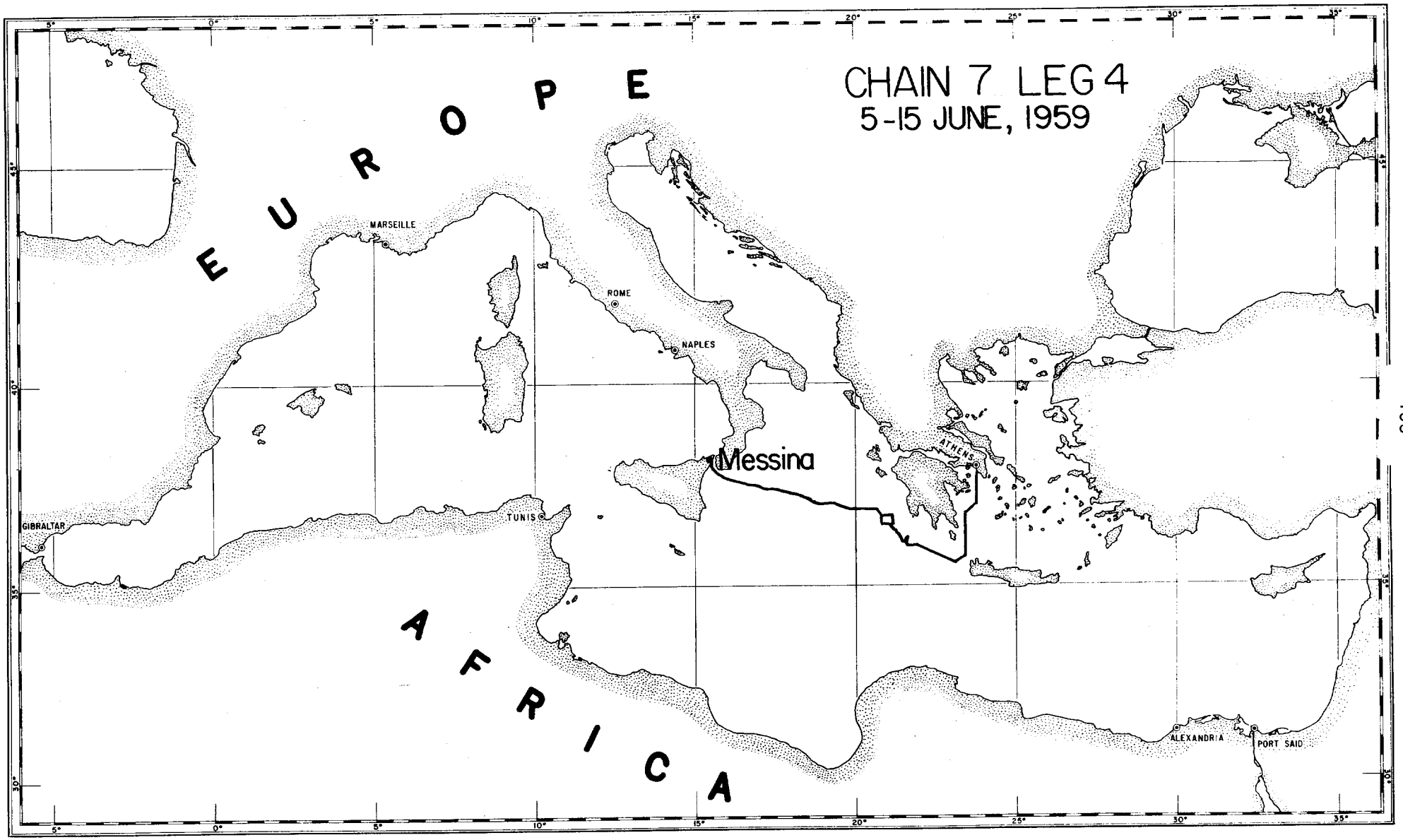
WHOI ROCK SAMPLE DESCRIPTION

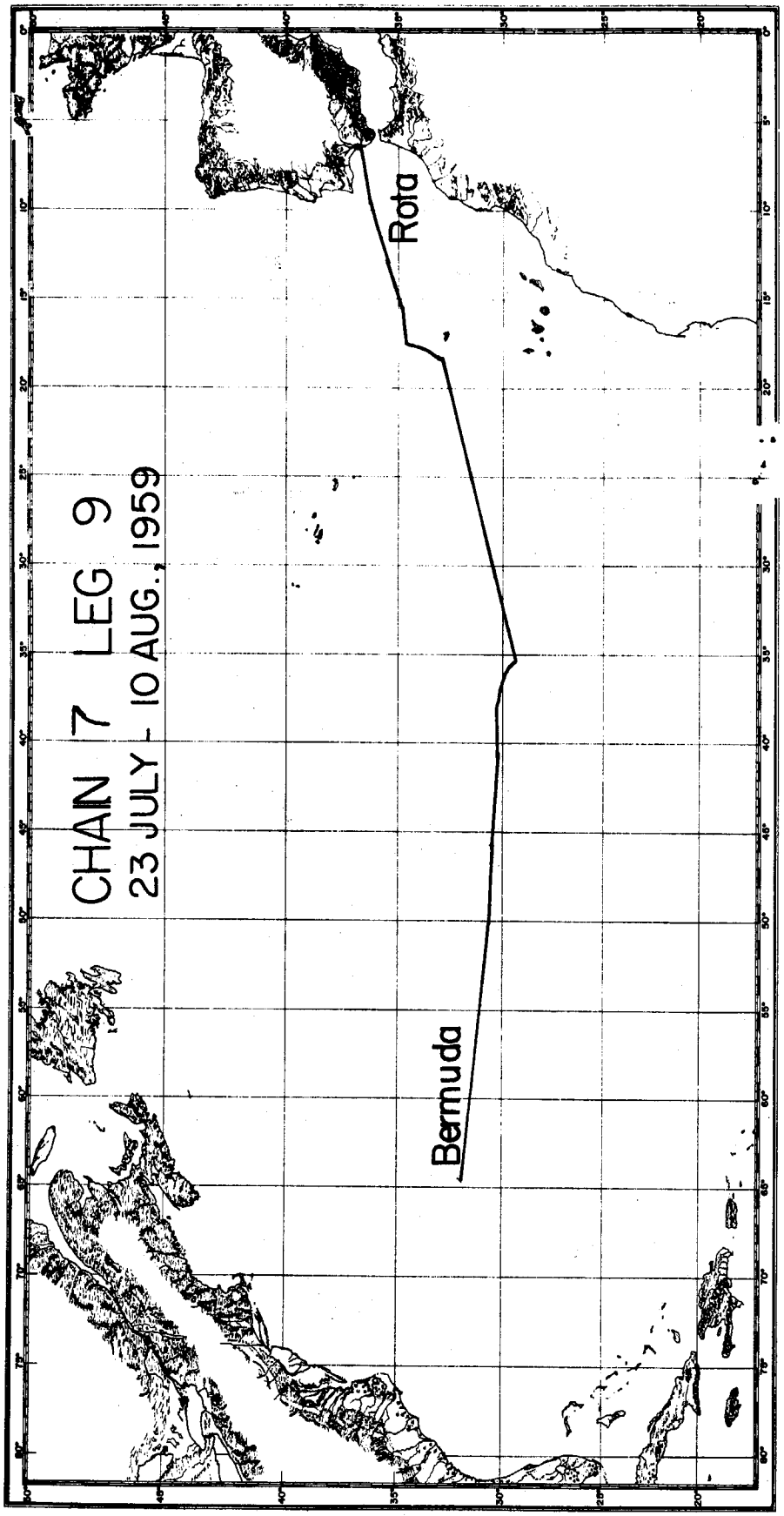
CRUISE AII 96 STATION 18 DREDGE 18 DESCRIBED BY G. Thompson DATE Nov. 1977

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Basalt	kg 2		glassy 'toothpaste-type' extrusions - some palag., little FeMn							
				interior fresh, good cooling margins - no phenos'							
2	Basalt	3		As #1							
3	Basalt	.2		Piece of basalt interior						perhaps broken on #1 or #2	


CHAIN 7 LEG 1
8 APRIL - 9 APRIL, 1959
Boston
Woods Hole
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA
85°
80°
75°
70°
60°
65°
40°
35°
30°
25°
20°
15°
10°


CHAIN 7 LEG 3
19 MAY - 2 JUNE, 1959
EUROPE
AFRICA
Cartagena
MARSEILLE
ROME
NAPLES
ATHENS
TUNIS
ALEXANDRIA
PORT SAID
GIBRALTAR


CHAIN 7 LEG 4
5-15 JUNE, 1959
EUROPE
AFRICA
MARSEILLE
ROME
NAPLES
Messina
ATHENS
GIBRALTAR
TUNIS
ALEXANDRIA
PORT SAID


CHAN 7 LEG 9
23 JULY - 10 AUG., 1959
Rota
Bermuda

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	7	1	0002	0000	7	59 510	36 13.0'N	12 15.0'W	4	110.62	0002	114.	114.	012K	12	0000	0	
CHN	7	1	0003	0000	7	59 510	36 13.0'N	12 15.0'W	4	110.62	0003	85.	85.	227G	12	0000	0	
CHN	7	1	0004	0000	7	59 510	36 12.0'N	12 15.0'W	4	110.62	0004	95.	123.	6.4K	12	0000	0	
CHN	7	3	0005	0000	7	59 524	37 32.0'N	11 10.0'E	4	143.71	0005	358.	358.	004K	21	0000	0	
CHN	7	3	0006	0000	7	59 524	37 32.0'N	11 10.0'E	4	143.71	0006	453.	453.	005K	21	0000	0	
CHN	7	3	0007	0000	7	59 525	37 32.0'N	11 10.0'E	4	143.71	0007	453.	453.	9.3K	21	0000	0	
CHN	7	3	0009	0000	7	59 526	36 11.0'N	15 29.5'E	4	143.65	0009	1136.	1136.	454G	21	0000	0	
CHN	7	3	0011	0000	7	59 526	36 10.9'N	15 32.0'E	4	143.65	0011	2104.	2104.	454G	21	0000	0	
CHN	7	4	0013	0000	7	59 6 8	37 39.0'N	16 37.5'E	4	143.76	0013	2296.	2296.	680G	21	0000	0	
CHN	7	9	0001	0000	8	59 730	30 2.0'N	28 34.0'W	4	111.08	0001	640.	612.	020K	12	0000	0	
CHN	7	9	0002	0000	8	59 730	30 2.0'N	28 33.0'W	4	111.08	0002	4988.	4988.	3.2K	12	0000	0	
CHN	7	9	0019	0000	7	59 725	35 5.0'N	12 13.0'W	4	110.52	0019	169.	199.	1.4K	12	0000	0	
CHN	7	9	0020	0000	7	59 725	35 5.0'N	12 13.0'W	4	110.52	0020	208.	98.	4.5K	12	0000	0	
CHN	7	9	0021	0000	7	59 725	33 44.0'N	14 20.0'W	4	110.34	0021	199.	199.	085G	12	0000	0	
CHN	7	9	0022	0000	7	59 725	33 44.0'N	14 20.0'W	4	110.34	0022	415.	274.	3.2K	12	0000	0	
CHN	7	9	0023	0000	7	59 725	33 44.0'N	14 20.0'W	4	110.34	0023	772.	500.	567G	12	0000	0	
CHN	7	9	0024	0000	7	59 731	30 .0'N	28 25.0'W	4	111.08	0024	295.	295.	340G	12	0000	0	
CHN	7	9	0025	0000	7	59 731	30 .0'N	28 23.0'W	4	111.08	0025	295.	295.	3.2K	12	0000	0	
CHN	7	9	0026	0000	7	59 731	30 .0'N	28 33.0'W	4	111.08	0026	1598.	1261.	113G	12	0000	0	
CHN	7	9	0027	0000	7	59 8 1	30 .0'N	28 30.0'W	4	111.08	0027	288.	288.	4.6K	12	0000	0	
CHN	7	9	0028	0000	7	59 8 5	31 18.0'N	44 31.0'W	4	113.14	0028	3614.	3642.	3.7K	15	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 7 STATION see below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION D1	ROCK DREDGE 1										
	Limestone	19K									large slab & smaller pieces
	Gravel	1.4K									igneous & metamorphic cobbles
STATION 2	DREDGE PD2										
	Volcanic breccias	3K				-	C	-	H		well-rounded cobbles (erratics); heavily covered w/pink coral & holdfasts.
	Basaltic erratics	8.8K									
STATION 3	DREDGE PD3										
	Volcanic agglomerate	225g									parent mass & two bombs
STATION 4	DREDGE PD4										
	Igneous & metamorphic erratics	6.4K									well-rounded cobbles; heavily coated w/pink coral and holdfasts
	Bioclastic sand	.3K									
STATION 5	DREDGE PD5										
	Calc. sand	4.1K		foram sand and	shell hash						
STATION 6	DREDGE PD6										
	Bioclastic gravel	3.4K		also contains	a few phosphorite	nodules					
	Calyxal limestone	1.6K									

WHOI ROCK SAMPLE DESCRIPTION

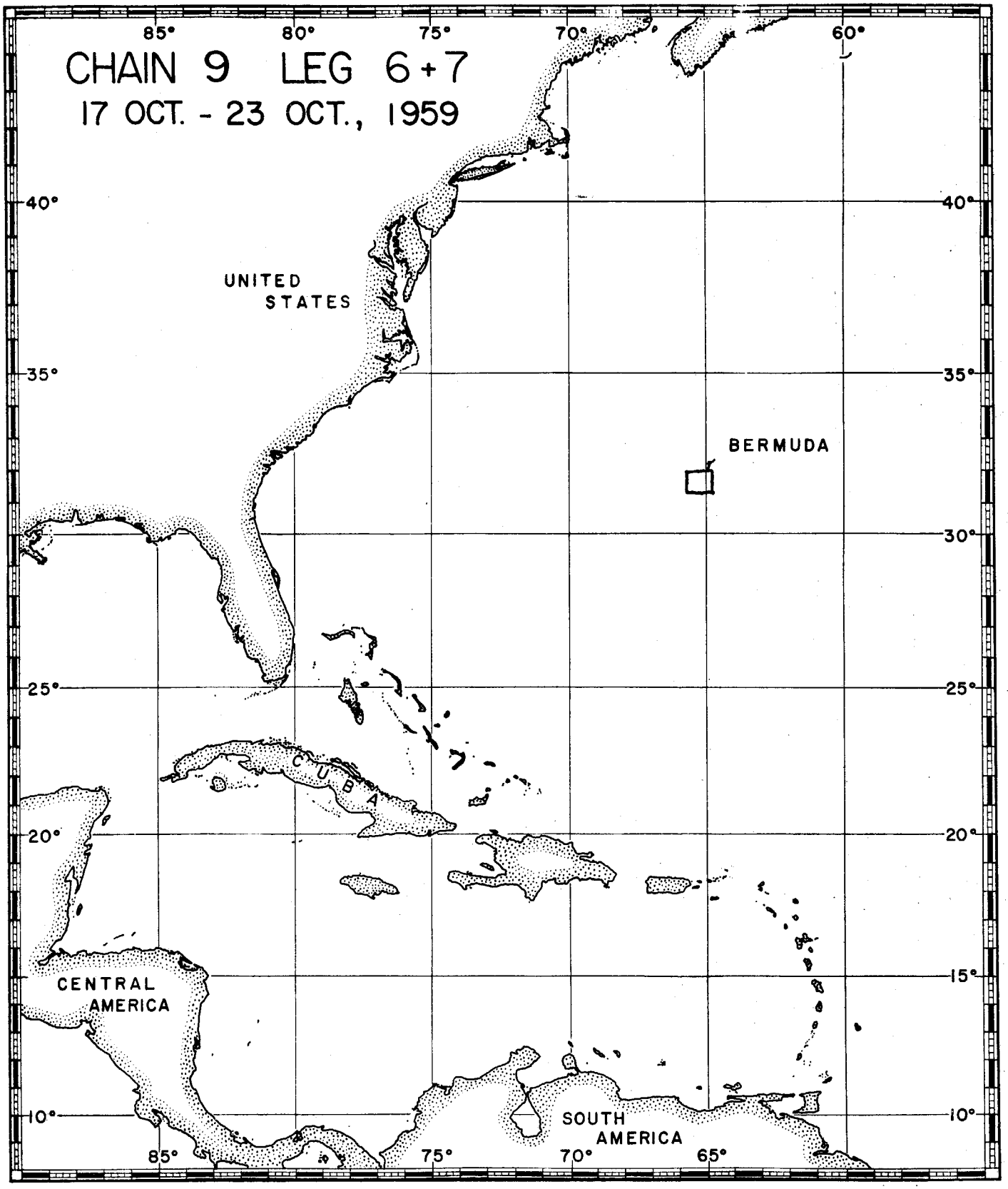
CRUISE CHAIN 7 STATION see below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 7	DREDGE PD7										
	Bioclastic gravel	3.6K									poorly sorted
	Calc. sand	5K									mostly forams
	Calyxal lime-stone	680g									
STATION 9	DREDGE PD9										
	Lutite	450g									calcareous silt with pteropods and coral
STATION 11	DREDGE PD11										
	Lutite	450g									calcareous with shell fragments
STATION 13	DREDGE PD13										
	Lutite	680g									calcareous ooze
STATION D2	ROCK DREDGE 2										
	Limestone	5.2K									Biolithic fragments
STATION 19	DREDGE PD19										
	Igneous erractic	1.4K									volcanic mesoaphanitic cobble
STATION 20	DREDGE PD20										
	Volcanic erratic	1.1K									tuffaceous
	Calc. sand	3.4K		Calc. sand and	coral hash						

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 7 STATION see below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 21	DREDGE PD21										
	Calc. sand	85g		with coral and shell hash							
STATION 22	DREDGE PD22										
	Bioclastic sand	3.2K		and shell hash							
STATION 23	DREDGE PD23										
		570g		limestone and erratic volcanic gravel							
STATION 24	DREDGE PD24										
	Coral hash & shell fragments	1									
STATION 25	DREDGE PD25										
	Calc. sand Coral hash	3.0K 225g		mostly forams							
STATION 26	DREDGE PD26										
	Granitic glacial erratic	115g									
STATION 27	DREDGE PD27										
	Algal limestone	1.5K									
	Calc. sand	2.7K									
	Calc. sand	450g		foram-pteropod ooze							
STATION 28	DREDGE PD28										
	Calc. sand	115g								Mn coated	
	Foram sand	450g									
	Calc. ooze	3.3K		indurated							


CHAIN 9 LEG 6+7
17 OCT. - 23 OCT., 1959
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA
85°
75°
70°
65°

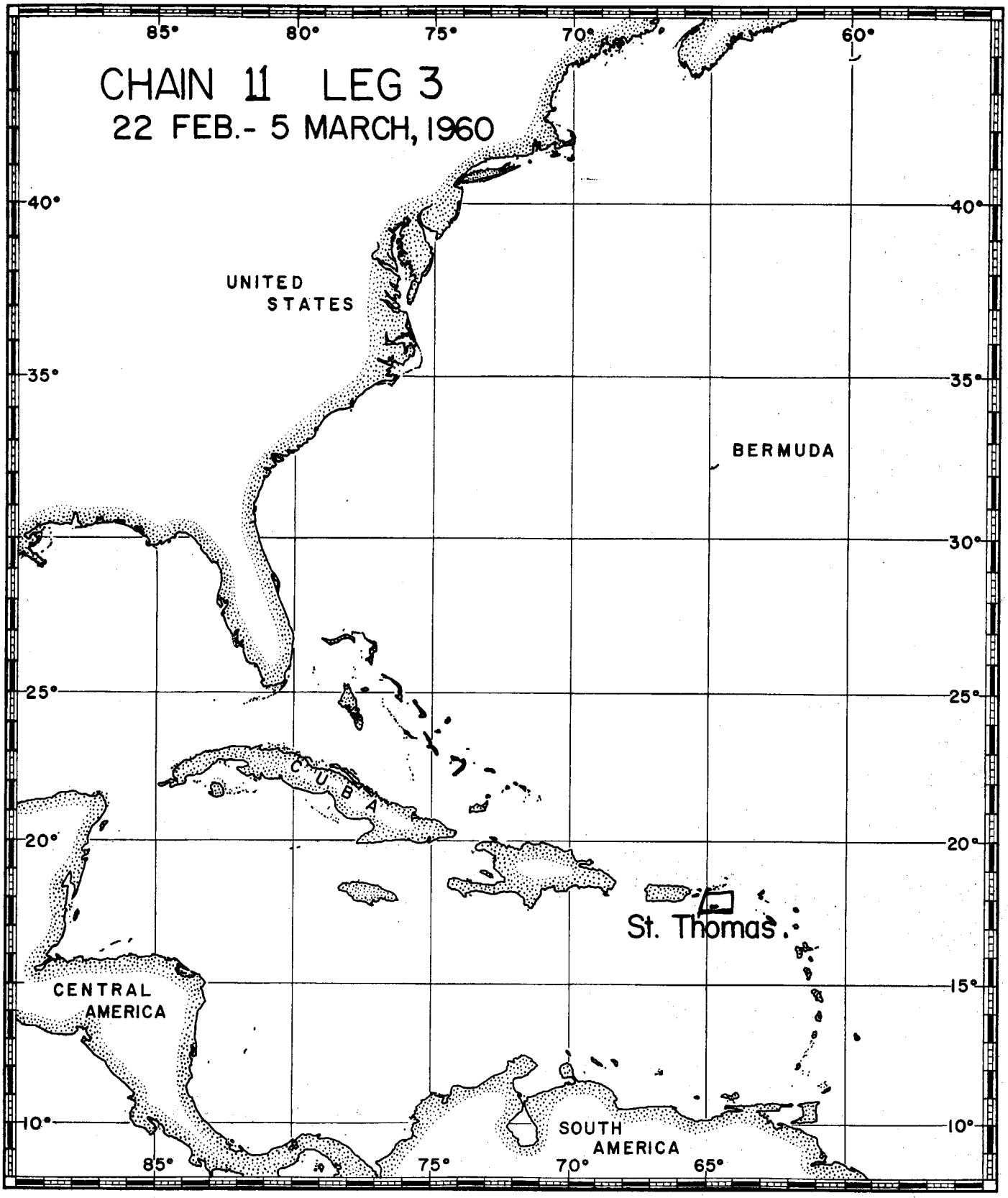
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

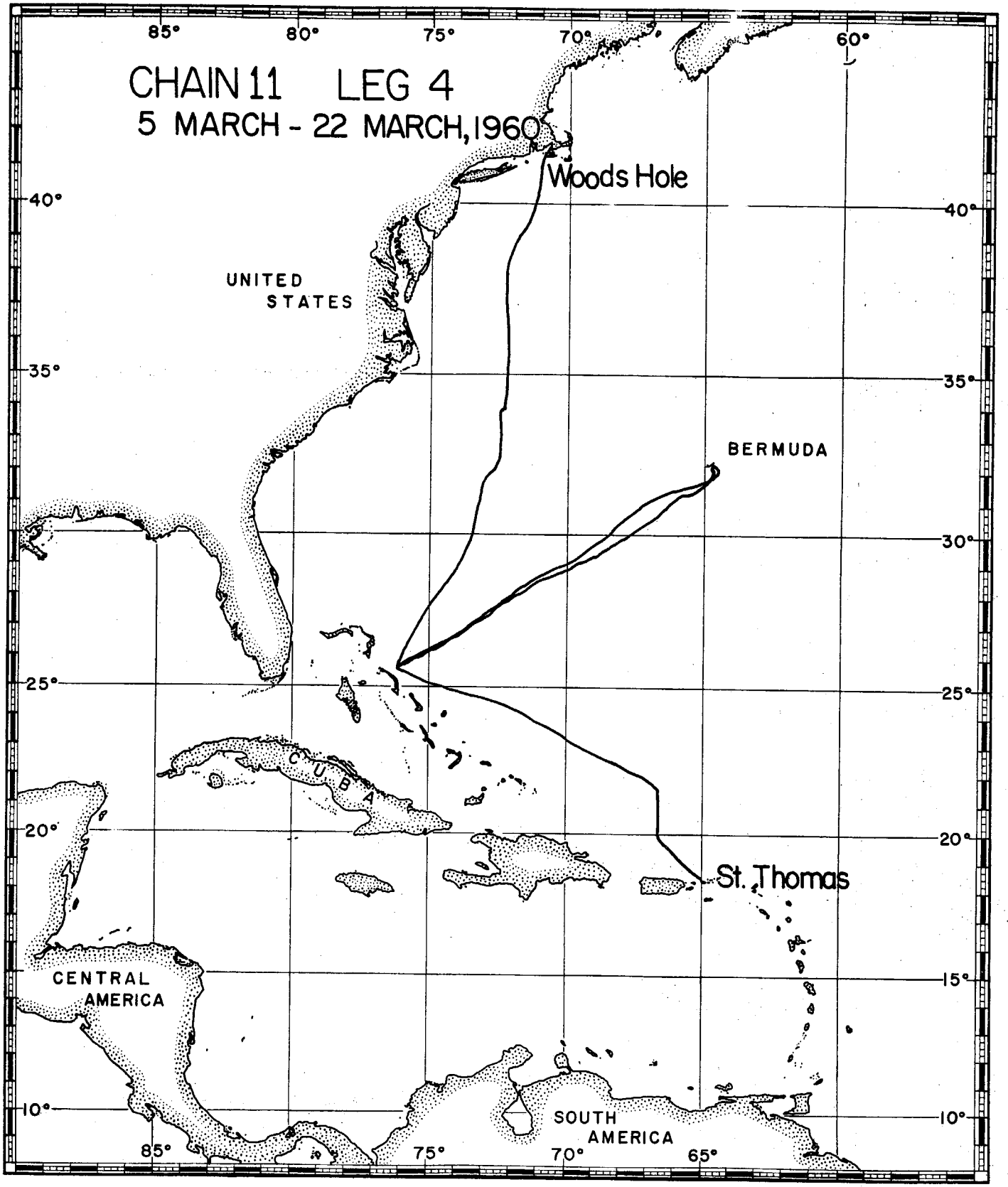
SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	9	6	0030	0000	7	591018	31 53.9'N	65 12.3'W	5	115.15	0002	1972.	1372.	028G	5	0000	0	
CHN	9	6	0031	0000	7	591018	31 54.7'N	65 12.9'W	5	115.15	0003	1128.	1035.	003K	5	0000	0	
CHN	9	7	0032	0000	7	591021	31 54.3'N	65 12.0'W	5	115.15	0005	1207.	1207.	340G	5	0000	0	
CHN	9	7	0033	0000	7	591021	31 54.2'N	65 13.1'W	5	115.15	0006	1636.	1542.	227G	5	0000	0	
CHN	9	7	0034	0000	7	591021	31 54.2'N	65 12.8'W	5	115.15	0007	1542.	1692.	002K	5	0000	0	
CHN	9	7	0035	0000	7	591021	31 55.0'N	65 11.8'W	5	115.15	0008	885.	940.	002G	5	0000	0	
CHN	9	7	0036	0000	7	591021	31 54.9'N	65 12.7'W	5	115.15	0009	1128.	997.	113G	5	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 9 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 30	DREDGE PD30										
	Coral	28g						X			
STATION 31	DREDGE PD31										
	Calc. ooze	3K		includes lutite, pteropods and coral							
STATION 32	DREDGE PD32										
	Coral	200g						X			
	Assorted gravel	150g		lithified marl	weathered basalt?			X,			
STATION 33	DREDGE PD33										
	Coral and shell	175g									
	Clinker	50g									
STATION 34	DREDGE PD34										
	Assorted gravel	2K		Coral and shell fragments & terrigeneous gravel							
STATION 35	DREDGE PD35										
	Coral	2g									
STATION 36	DREDGE PD36										
	Calc. gravel	113g		Algal limestone, coral and shell fragments							


CHAIN 11 LEG 3
22 FEB.- 5 MARCH, 1960
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
UNITED STATES
BERMUDA
CUBA
St. Thomas
CENTRAL AMERICA
SOUTH AMERICA
65°


CHAIN 11 LEG 4
5 MARCH - 22 MARCH, 1960
Woods Hole
UNITED STATES
BERMUDA
CUBA
St. Thomas
CENTRAL AMERICA
SOUTH AMERICA
85°
80°
75°
70°
60°
65°
40°
35°
30°
25°
20°
15°
10°

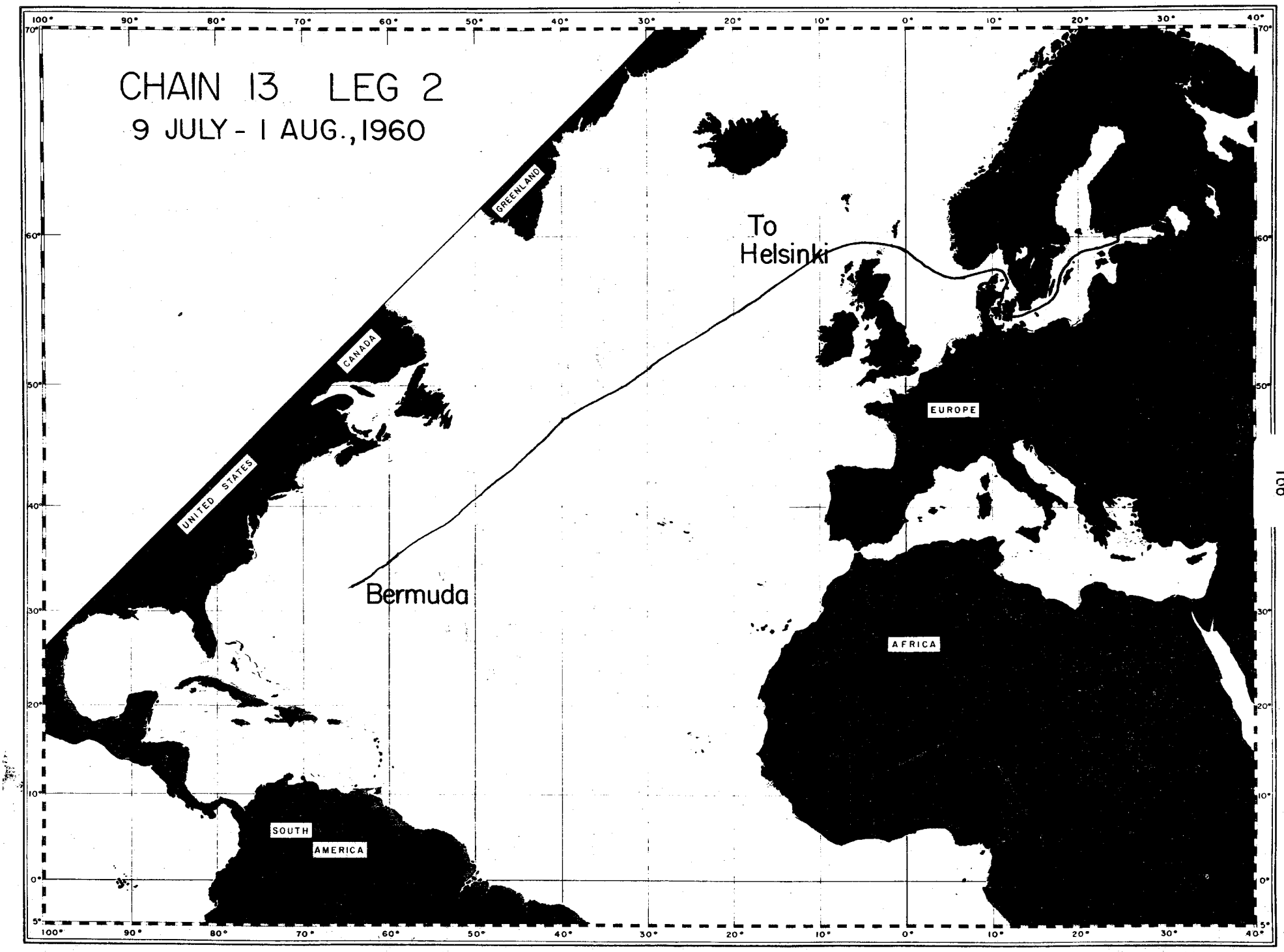
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

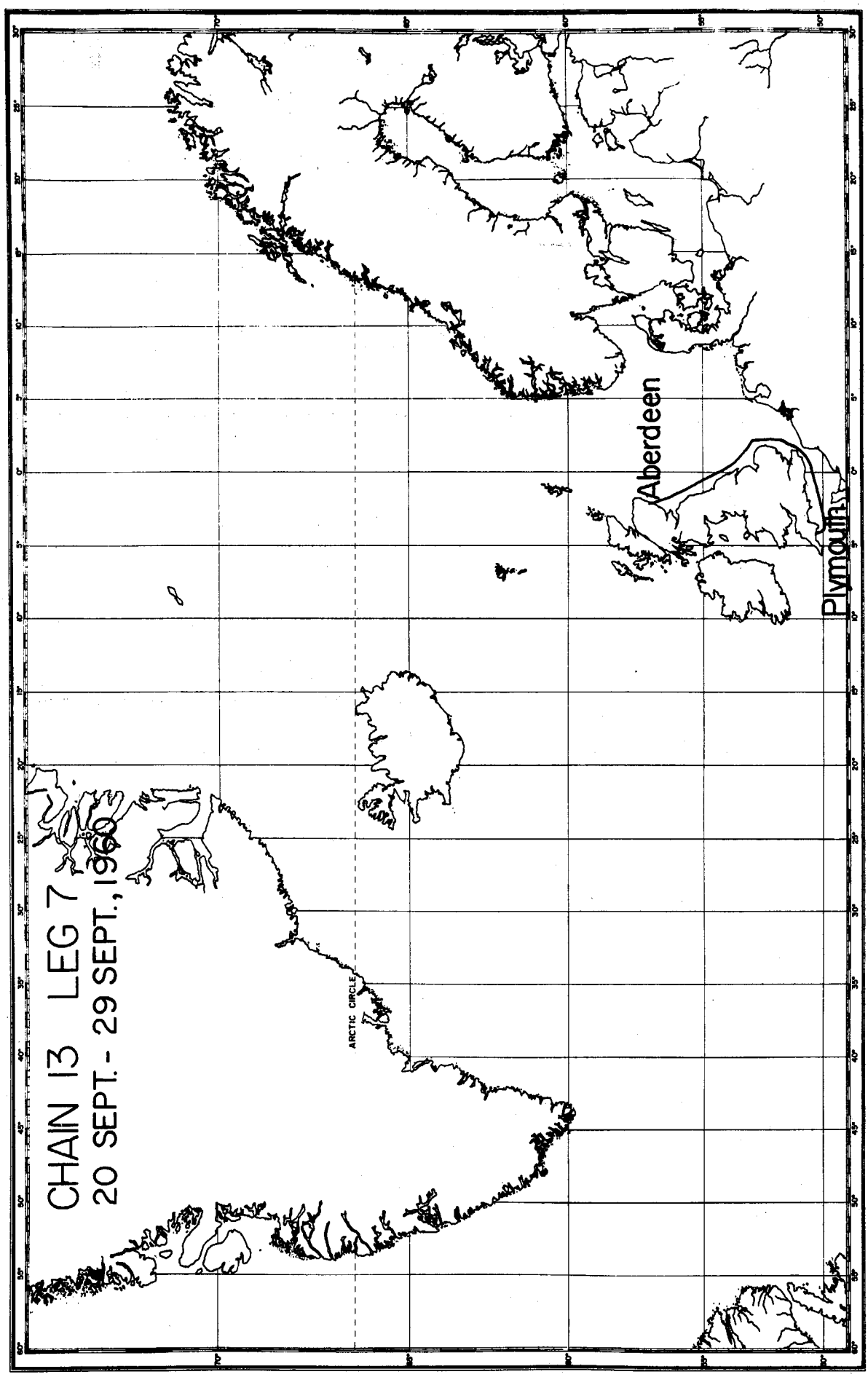
SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	11	3	0038	0000	7	60 222	17 45.0'N	64 55.0'W	4	43.74	0038	755.	942.	2.1K	3	0000	0	
CHN	11	4	0039	0000	7	60 3 7	20 .0'N	66 36.0'W	4	79.06	0039	5302.	5302.	700G	17	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 11 STATION see below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE _____

Sample #	Lithology	Wt.	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 38	DREDGE PD38										
	Calc. sand	2K									
STATION 39	DREDGE PD39										
	Siliceous lutite	700g									


CHAIN 13 LEG 2
9 JULY - 1 AUG., 1960
GREENLAND
CANADA
UNITED STATES
To
Helsinki
EUROPE
Bermuda
AFRICA
SOUTH
AMERICA


CHAIN 13 LEG 7
20 SEPT.- 29 SEPT., 1960
Aberdeen
Plymouth
ARCTIC CIRCLE

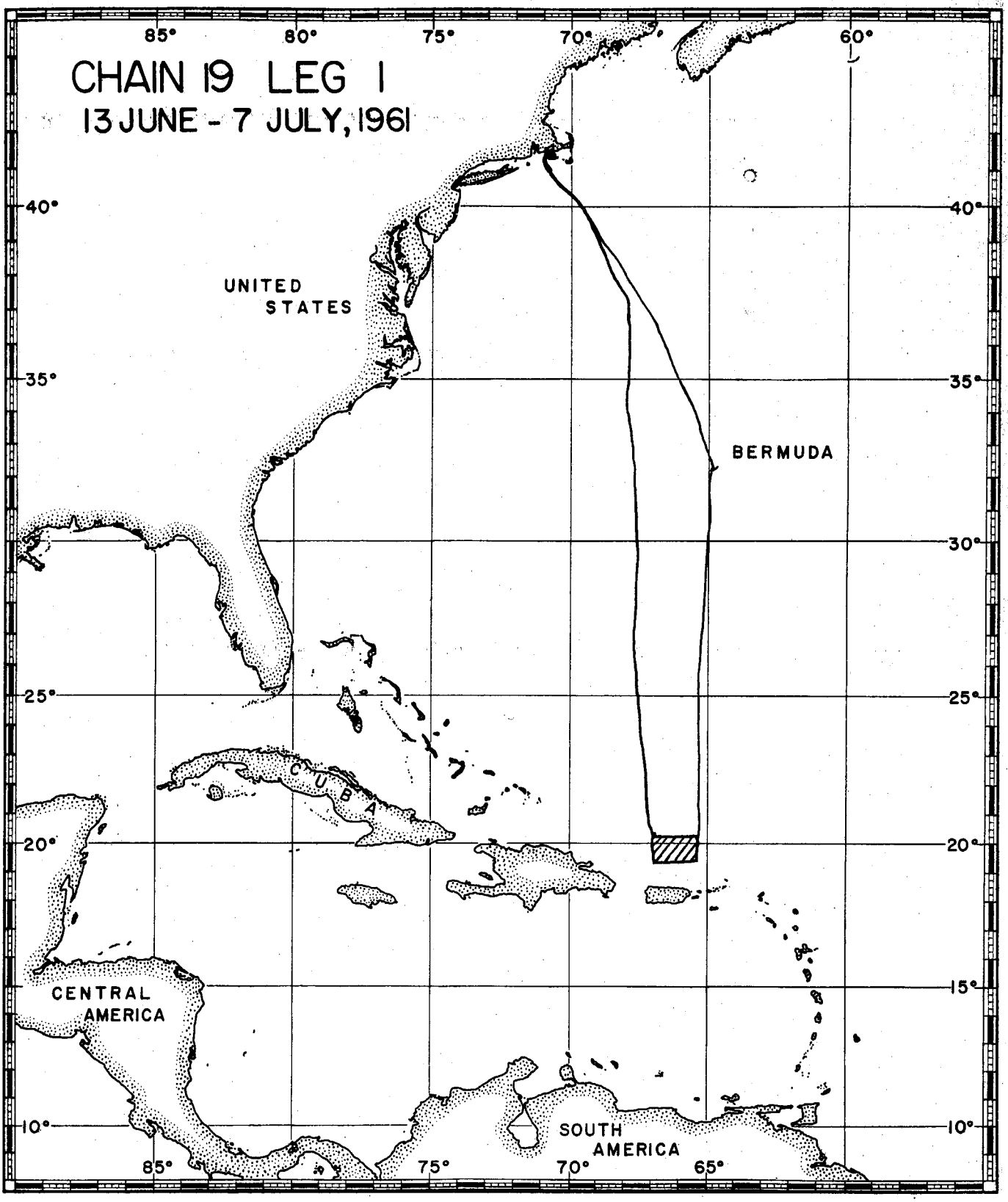
********** STATION DATA RETRIEVAL **********
********** DATE: 08:52 SEP 21,'81 **********

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	13	2	0007	0000	8	60 723	51 28.0'N	29 45.0'W	1	183.19	0007	1301.	1301.	040K	14	0000	0	
CHN	13	2	0040	0000	7	60 721	50 44.0'N	29 52.0'W	5	183.09	0040	3897.	3556.	5.7K	16	0000	0	
CHN	13	2	0041	0000	7	60 725	57 35.2'N	13 32.0'W	5	182.73	0041	147.	147.	012K	13	0000	0	
CHN	13	2	0042	0000	7	60 725	57 35.2'N	13 32.0'W	1	182.73	0042	162.	162.	011K	13	0000	0	
CHN	13	7	0008	0000	8	60 925	48 46.0'N	10 2.0'W	5	146.80	0008	334.	334.	113G	4	0000	0	
CHN	13	7	0009	0000	8	60 925	48 47.0'N	10 1.5'W	5	146.80	0009	814.	841.	029K	4	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 13 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 7	Gneiss	1.8K	M	hornblende plag.		-	-	-	F		a few worm tubes
	Coral	2.7K		Mn coated branching coral							
	Gabbro	21K	C	plag., pyrox, olivine	-	-	-	-	L-M		4 large pieces & numerous small ones
	Erratics	5K		schists, granites & quartzites							
STATION 8	Calc. sand	100g		fine to coarse calc. sand							
STATION 9	Limestone	27K		heavily burrowed algal limestone							
	Calc. lutite	1K		calcareous silty lutite							
	Chalk	680g		indurated							
STATION 40	Calc. ooze	4.3K		includes scattered small fragments of angular basalt glass.							
	Glassy basalt	1.3K		small angular fragments of fresh glassy basalt							
	Glacial erratic	100g		also present are a few subrounded granitic erratic pebbles							
STATION 41	Calc. ooze with basalt pebbles	4.5K		coarse calc. sand with rounded to subangular pebbles of basalt							
				basalts are medium to heavily weathered, with small plag. phenocrysts common							
	Basalt cobbles	7.7K		-	few to common	-	-	-	L-M		labelled Stations 41&42
				few granitic (erratic) cobbles also							
STATION 42	Calc. ooze with basalt pebbles	3.4K		coarse calc. sand with rounded to subangular pebbles of basalt							
				basalts are medium to heavily weathered with small plag. phenocrysts common							
	basalt cobbles	7.7K		See Station 41 above							


CHAIN 19 LEG 1
13 JUNE - 7 JULY, 1961
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
65°
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA

*************** STATION DATA RETRIEVAL *************** PAGE 1
*************** DATE: 08:52 SEP 21,'81 *************** **WHOI**

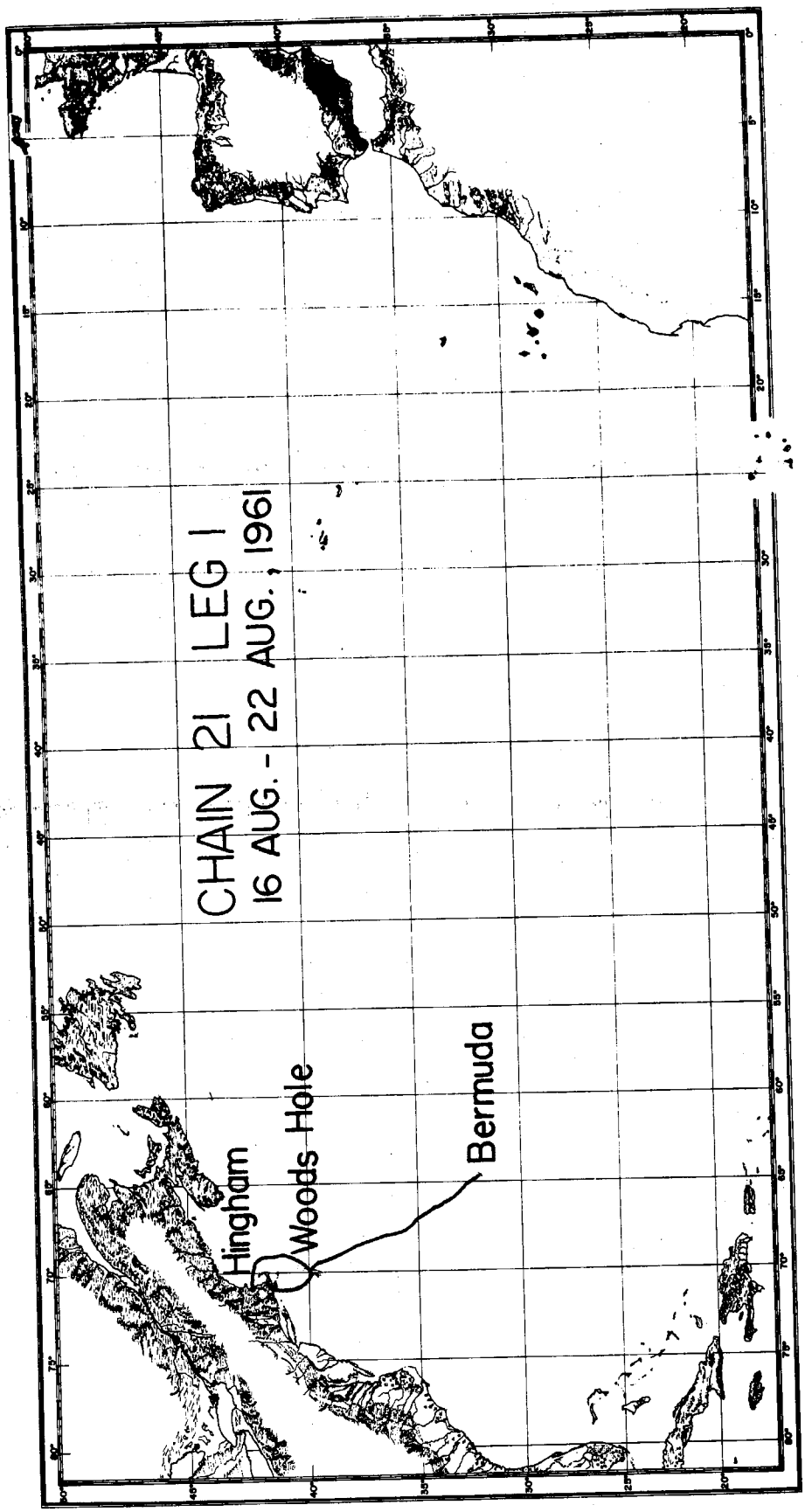
SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	19	1	0002	0000	8	61 628	19 58.4'N	66 25.2'W	5	43.96	0002	6987.	6594.	567G	17	0000	0	
CHN	19	1	0003	0000	8	61 628	19 58.4'N	66 25.7'W	5	43.96	0003	6968.	6544.	020K	17	0000	0	
CHN	19	1	0010	0000	8	61 630	20 .0'N	66 32.5'W	5	43.06	0010	6563.	6436.	010K	17	0000	0	
CHN	19	1	0011	0000	8	61 7 1	20 7.9'N	66 28.3'W	5	43.06	0011	3115.	3176.	454G	17	0000	0	
CHN	19	1	0013	0000	8	61 7 2	20 10.0'N	66 19.0'W	5	43.06	0013	6264.	6178.	7.7K	17	0000	0	

COMMENTS EDGERTON GRAPPLING DEVICE VOLUNTEERED THIS MATERIAL.

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 19 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION CD1	DREDGE CD1										
	Lutite	100g		Calc. clay							
STATION D2	DREDGE D2										
	Assorted gravel	600g		fragments of altered basalt & greenstone							
STATION D3	DREDGE D3										
	Lithified mud-stones	20K		mostly siliceous mudstones & cherts							
	Basalt	.5K	A		tr pg.	-	-	.1	M		
STATION D10	DREDGE 10										
	Calc. sand	700g		indurated							
	Mudstone	7.7K		non-calcareous							
	Greenstone	1.8K	A					tr	H	serpentinized	many small pieces
	Basalt	.25K	A		tr pg.			.1 mm	L		
STATION D11	DREDGE 11										
	Mudstone	450g		slightly calcareous							
STATION D13	DREDGE 13										
	Lutite	7.7K		slightly calc.	clay						


CHAIN 21 LEG 1
16 AUG. - 22 AUG., 1961
Hingham
Woods Hole
Bermuda

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	21	1	0002	0000	8	61 818	36 40.0'N	67 56.5'W	5	115.67	0002	3292.	3283.	7.6K	12	0000	0	
CHN	21	1	0003	0000	8	61 829	29 .0'N	47 26.8'W	1	77.97	0003	3795.	4706.	454G	15	0000	0	
CHN	21	1	0004	0000	8	61 9 2	29 4.3'N	44 15.6'W	1	77.94	0004	3806.	3692.	907G	14	0000	0	
CHN	21	1	0006	0000	8	61 9 3	29 4.0'N	43 2.0'W	1	77.93	0006	2264.	2264.	3.4K	16	0000	0	
CHN	21	1	0007	0000	7	61 9 3	29 4.0'N	43 3.0'W	1	77.93	0007	2264.	2264.	6.9K	16	0000	0	
CHN	21	1	0008	0000	8	61 9 8	29 49.0'N	28 40.0'W	1	75.98	0008	462.	462.	454G	12	0000	0	
CHN	21	1	0010	0000	8	61 9 8	29 49.0'N	28 40.0'W	1	75.98	0010	349.	340.	113G	12	0000	0	
CHN	21	1	0011	0000	8	61 9 8	29 49.0'N	28 40.0'W	1	75.98	0011	321.	317.	6.8K	12	0000	0	
CHN	21	1	0013	0000	8	61 9 8	29 47.0'N	28 19.0'W	1	75.98	0013	589.	591.	3.6K	12	0000	0	
CHN	21	1	0014	0000	8	61 9 8	29 47.0'N	28 20.0'W	1	75.98	0014	393.	358.	003K	12	0000	0	
CHN	21	1	0015	0000	8	61 9 8	29 46.3'N	28 19.0'W	1	75.98	0015	871.	832.	3.3K	12	0000	0	
CHN	21	1	0020	0000	8	6112 9	28 54.5'N	43 18.3'W	5	77.83	0020	3692.	3701.	095K	14	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

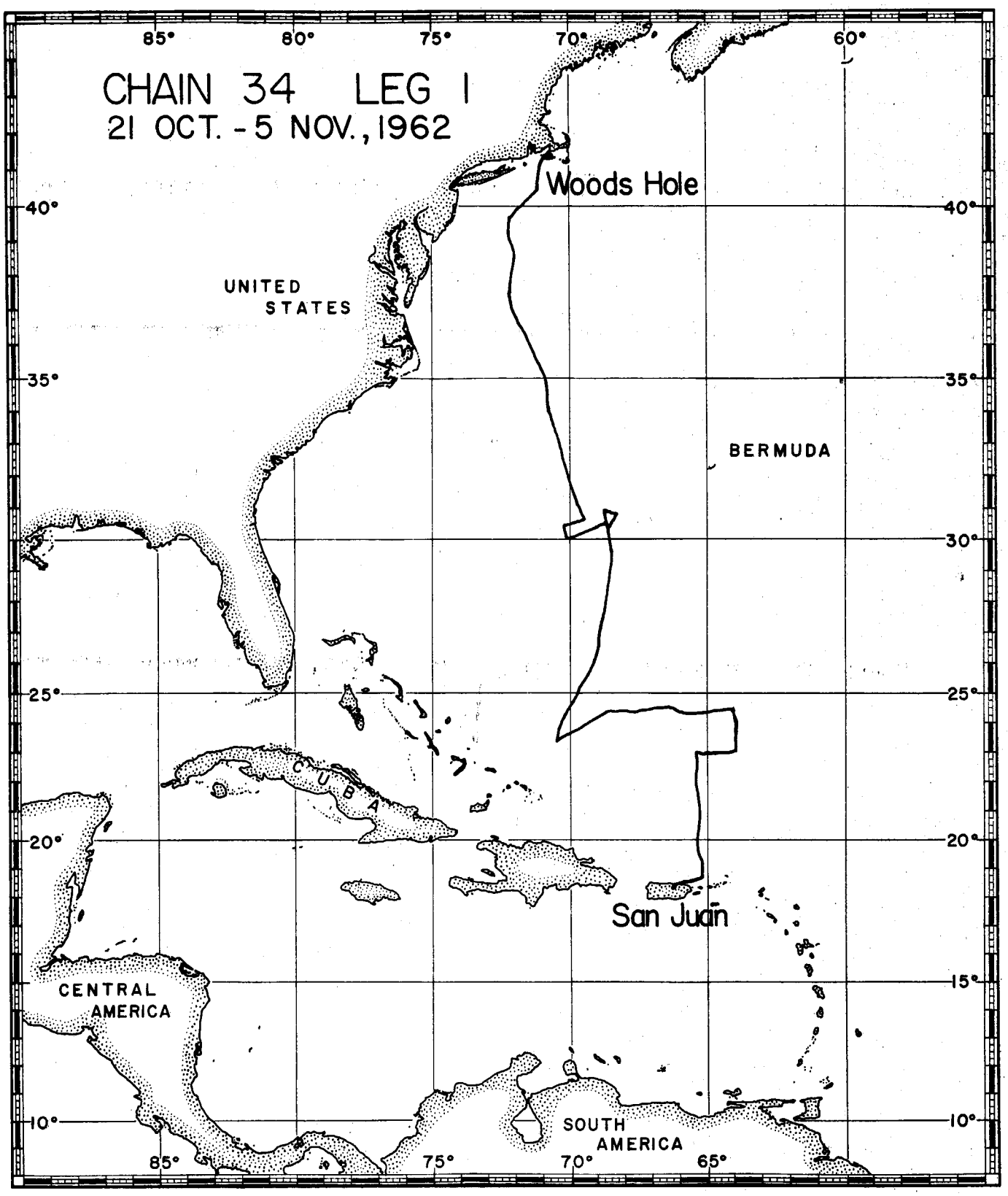
CRUISE CHAIN 21 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION D-2	DREDGE No. 2										
	Mn nodules	7.3K									4 separate nodules
	Coral	35g									
STATION D-3	DREDGE No. 3										
	Lutite	450g									
STATION D-4	DREDGE No. 4										
	Lutite	900g									
STATION D-6	DREDGE No. 6										
	Lutite	1.1K									
	Basalt cobbles	2.3K	A		Tr Pg, 01.			tr	L		Several pieces
STATION D-7	DREDGE No. 7										
		3K			Calc. ooze						
	Loose sediment	2K		foram-pteropod sand							
	Sediment	2K		indurated calc. ooze							
STATION D-8	DREDGE No. 8										
	Basalt	450g				25%			L		Coral encrusted
STATION D-10	DREDGE No. 10										
	Biogenic debris	115g		branching coral and sponge colonies							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 21 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION D-11	DREDGE No. 11										
	Loose sediment	6.8K		foram sand and shell fragments							
STATION D-13	DREDGE No. 13										
	Loose sediment	3K		foram sand and shell fragments							
	Sediment	680g		indurated calc. sand							
STATION D-14	DREDGE No. 14										
	Algal limestone	2.9K									
	Biogenic debris	10gm		Sponges and coral							
STATION D-15	DREDGE No. 15										
	Loose sediment	2.7K		Foram pteropod sand and shell fragments							
	Biogenic debris	30gm		Sponges and coral							
STATION D-20	DREDGE No. 20										
	Basalt	30K	A		tr Pg, Ol.				F		No glass
	Basalt	21K	A		tr Pg. Ol.				V-F		Glassy margin
	Greenstone	7.5K	A						L	Serpentenized	
	Basalt	36.3K	A		tr. Pg. Ol.				V-F		Small cobbles, some with glass
	Chert	115g									fine bedding laminae


CHAIN 34 LEG 1
21 OCT. - 5 NOV., 1962
Woods Hole
San Juan
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA
85°
80°
75°
70°
60°
65°
40°
35°
30°
25°
20°
15°
10°

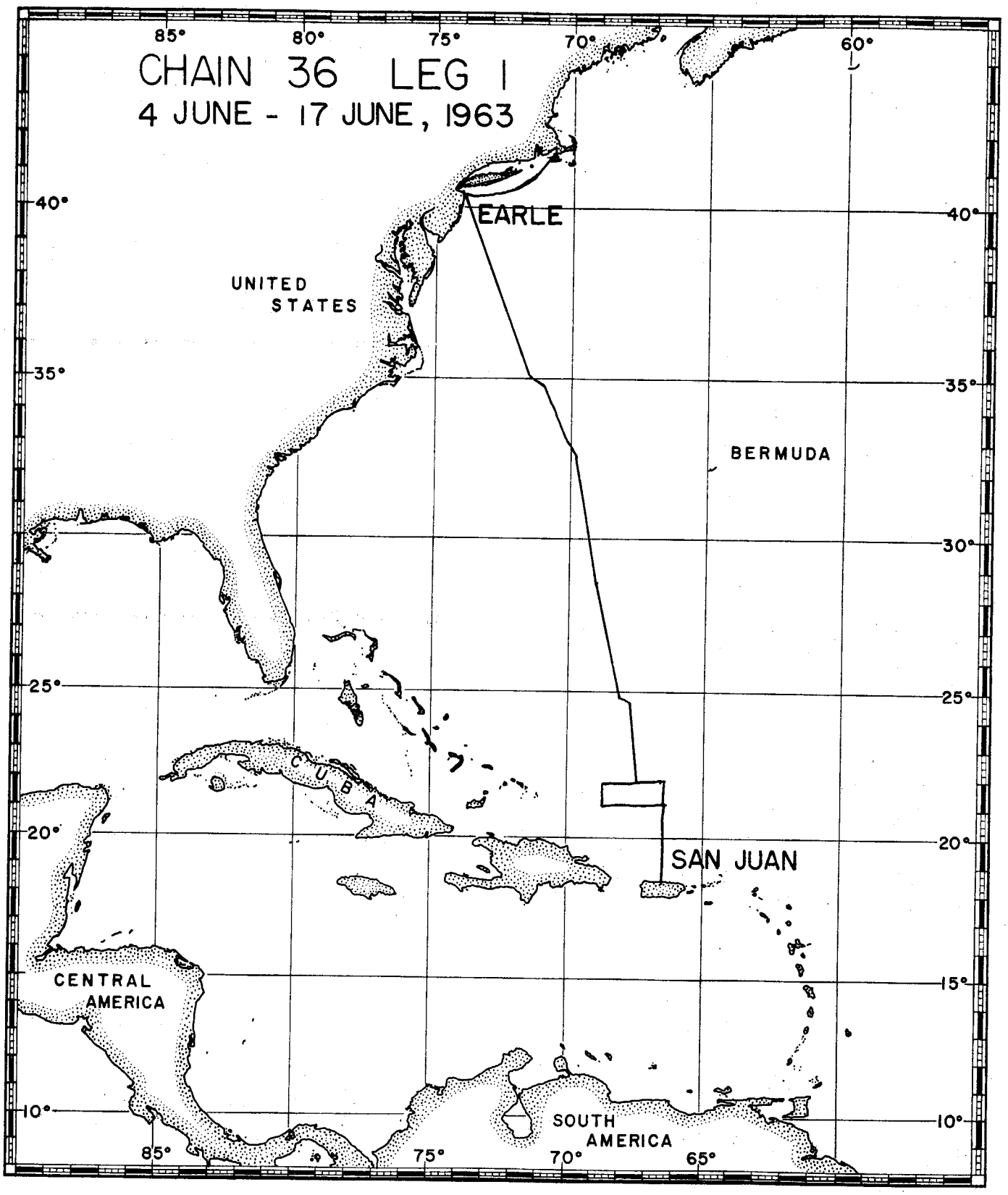
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	34	1	0002	0000	8	6212 3	19 57.0'N	66 28.5'W	5	79.96	0002	7362.	7362.	001K	17	0000	0	
CHN	34	1	0003	0000	8	6212 4	20 16.0'N	65 41.0'W	5	79.05	0003	7002.	6127.	126K	17	0000	0	
CHN	34	1	0004	0000	8	6212 4	20 12.5'N	65 48.0'W	5	79.05	0004	6687.	6518.	3.6K	17	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 34 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION D-2	DREDGE No. 2										
	Serpentinite	115g							L		
	Basalt	900g	A		tr. Pg.				H	heavy hydro-thermal	
STATION D-3	DREDGE No. 3										
	Chert	67K									
	Mn Pavement	1.5K									
	Calc. ooze	750g									indurated
	Basalt	45K			Pg 10%, Ol tr	-	-	tr	M	weathered Ol. phenocrysts	
	Gravel	12K		Mostly basalt chips and a small amount of chert.							
STATION D-4	DREDGE No. 4										
	Basalt	3.4K	A			tr	-	tr	L		6 small cobbles
	Clay	230g									Siliceous


CHAIN 36 LEG 1
4 JUNE - 17 JUNE, 1963
EARLE
SAN JUAN
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA
85°
80°
75°
70°
60°
65°
40°
35°
30°
25°
20°
15°
10°

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	36	1	0017	0000	8	63 630	16 43.0'N	58 6.0'W	1	42.68	0005	5065.	4274.	051K	17	0000	0	
CHN	36	1	0018	0000	8	63 7 8	36 42.0'N	67 59.0'W	5	115.67	0006	4327.	4111.	051K	12	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 36 STATION 17 DREDGE 5 DESCRIBED BY FARMER DATE 18 Jan.1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
4	Gabbro	.05	M	plag., px					M		
2	Basalt	.6	A		tr. plag., px				M		
3	Basalt	.1	A		tr. plag.		tr	tr	M	very altered palagonite	highly variolitic
1	Basalt	.1	A				?		M-H	very altered palagonite	highly variolitic
5	Basalt	.1	A		tr. plag.				M		
6	Diabase	.2	F						M		
7	Diabase/Basalt	.1	F						M		
8	Basalt	.1	A						M		
9	Diabase/Basalt	.3	F						M		
10	Diabase/Basalt	.2	F						M		
11	Diabase/Basalt	.3	F						L		
12	Diabase/Basalt	.1	F						M		
13	Basalt	.1	A		10% olivine 15% plag.				M	Black secondary minerals	coarse plag. phenocryst
14	Basalt	.1	A						M-H	Highly altered palagonite	highly variolite
20	Basalt	.2	A		5% plag. (small)				L		
24	Basalt	.6	A		10% plag.				L		
25	Basalt	.6	A				C?		H		highly variolitic
60	Basalt	20	A		10% plag. 2% ol.				L		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 36 STATION 17 DREDGE 5 DESCRIBED BY FARMER/BRODA DATE 18 Jan. 1979

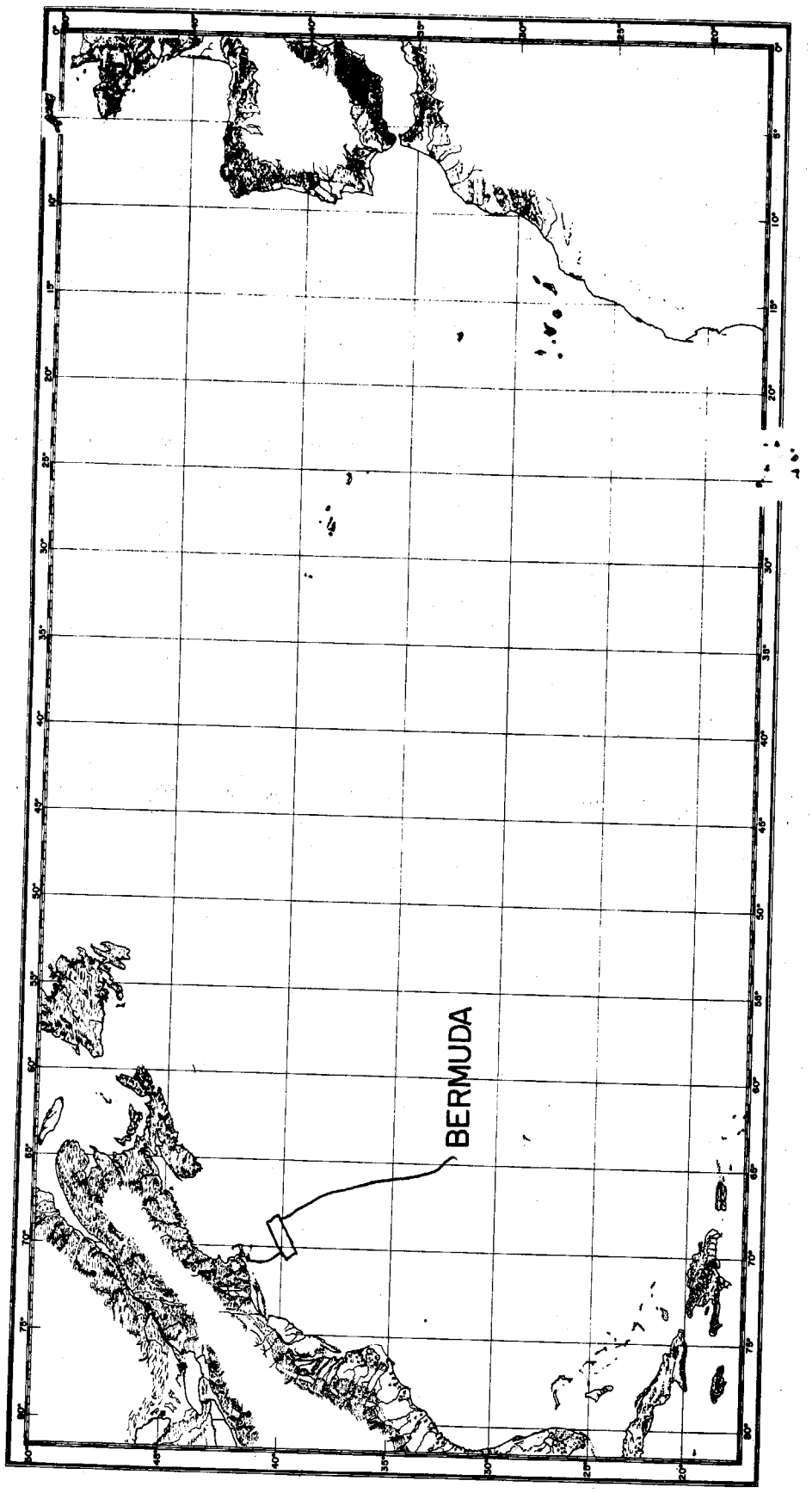
Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
57	Basalt	1.8	A	-	15% plag.	-	-	-	L	secondary black mineral	coarse plag. phenocrysts.
55	Basalt	2.7	A	-	-	-	-	-	M	partly chloritized to greenstone	
56	Basalt	2.7	A	-	-	-	-	-	M	"	
58	Basalt	2.5	A	-	20% plag. 2% ol.	-	-	-	M	black secondary mineral	coarse plag. phenocrysts.
35	Basalt	.4	A	-	15% plag.	-	-	-	M	"	" " "

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 36 STATION 18 DREDGE 6 DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Welded tuff	.2	A			5%	C	.1	M	Zeolites ? in vesicles	vesicles are stretched by flowing
3	Basalt	.3	A			7%	A	.5	H		
4	Basalt	.2	A		tr. plag.	20%	tr	.1	H		
6	Basalt	.4	A			5%	C	.5	H		
7	Basalt	.4	A			3%	C	2 mm	H		
8	Basalt	.5	A			3%	S	2 mm	H		
9	Basalt	.1	A			7%	S	1 mm	M-H		vesicles seem to be stretched?
100	Basalt	.6	A			30%	-	.1	L		
unnumbered		28K	-	weathered basalts, erratics, lithified marl, phillipsite all heavily coated with Mn.							
unnumbered	Mn Nodules	22K	-	various sizes shapes and densities and a few slabs of pavement							
-10	Calc. ooze	.8	-								

CHAIN 39 LEG II
23 AUG. - 1 SEPT., 1963



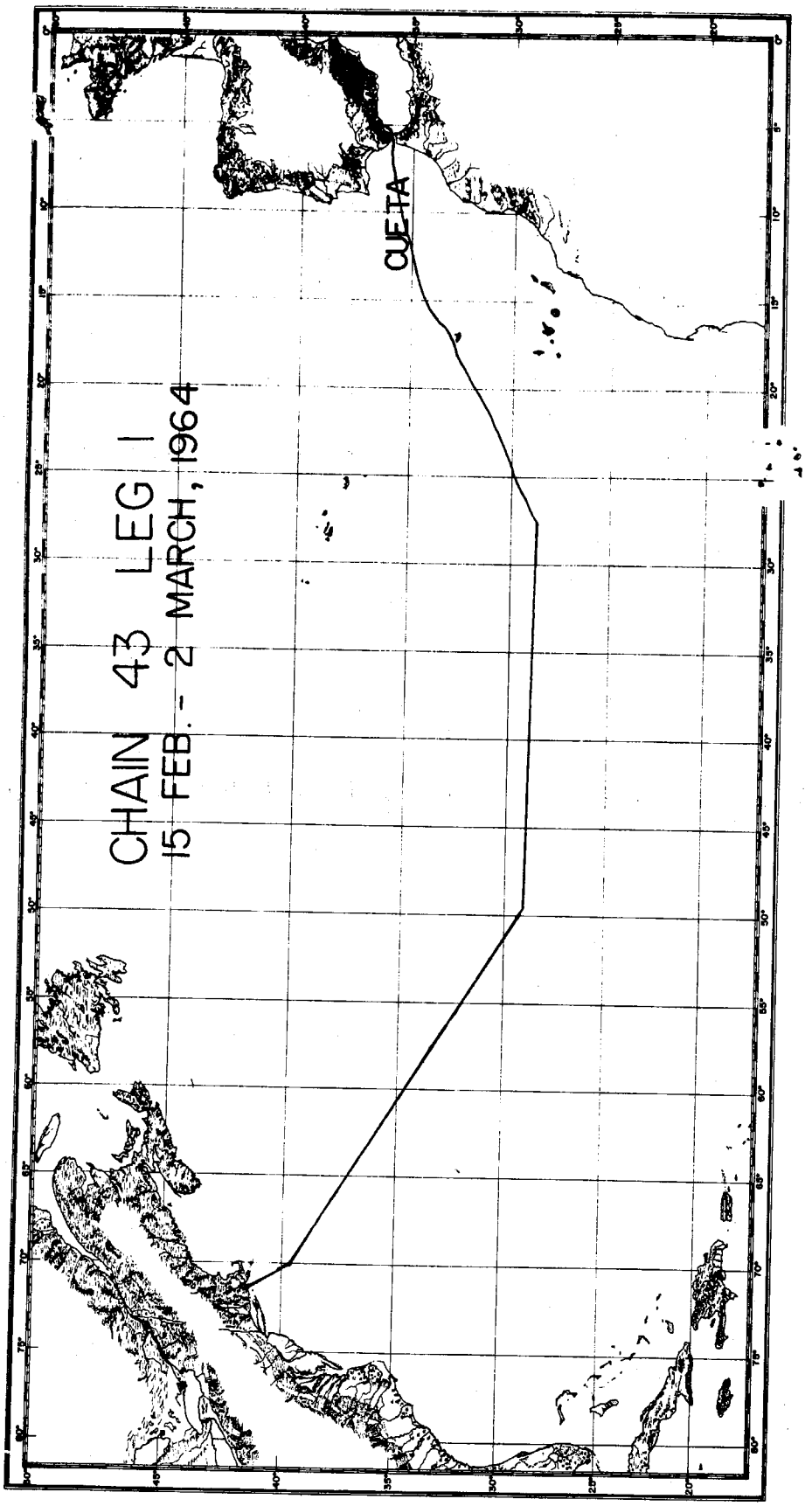
********** STATION DATA RETRIEVAL **********
********** DATE: 08:52 SEP 21,'81 **********

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	39	2	0003	0000	8	63 9 9	25 14.0'N	54 51.0'W	5	78.54	0002	6228.	6177.	113G	11	0000	0	
CHN	39	2	0005	0000	8	63 910	25 12.0'N	55 28.0'W	5	78.55	0003	5564.	4722.	227G	11	0000	0	
CHN	39	2	0006	0000	10	63 911	24 28.0'N	55 6.0'W	5	78.45	0004	6097.	5884.	1.1K	11	0000	0	
CHN	39	2	0008	0000	8	63 912	23 58.0'N	55 .0'W	5	78.35	0005	5820.	4935.	227G	11	0000	0	
CHN	39	2	0012	0000	8	63 916	29 14.0'N	59 47.0'W	5	78.99	0006	5578.	5537.	113G	11	0000	0	
CHN	39	2	0013	0000	8	63 917	29 22.0'N	59 48.0'W	5	78.99	0007	5723.	5472.	454G	11	0000	0	
CHN	39	2	0014	0000	8	63 918	29 47.0'N	59 39.0'W	5	78.99	0008	5647.	5076.	227G	11	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 39 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 3	DREDGE No. 2										
	Silty lutite	115g									
STATION 5	DREDGE No. 3										
	Calcareous clay	230g									
STATION 6	DREDGE No. 4										
	Unfoss. clay	1.1K									
STATION 8	DREDGE No. 5										
	Silty lutite	230g									
STATION 12	DREDGE No. 6										
	Unfoss. clay	115g									
STATION 13	DREDGE No. 7										
	Unfoss. clay	455g.									
STATION 14	DREDGE No. 8										
	Unfoss. clay	230g									


CHAIN 43 LEG 1
15 FEB. - 2 MARCH, 1964
QUETA

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	43	1	0003	0000	8	64 325	20 58.8'N	38 9.5'E	5	105.08	0001	2131.	1543.	456G	16	0000	0	
CHN	43	1	0006	0000	8	64 326	17 38.0'N	40 8.0'E	5	68.70	0003	1378.	1194.	002G	16	0000	0	
CHN	43	1	0008	0000	8	64 4 4	5 35.5'N	54 3.0'E	1	31.54	0004	4711.	3285.	5.4K	19	0000	0	
CHN	43	1	0011	0000	8	64 4 9	1 37.0'S	53 21.0'E	1	330.13	0005	4784.	4088.	006K	10	0000	0	
CHN	43	1	0017	0000	7	64 412	3 37.0'S	55 42.0'E	1	330.35	0001	2618.	2618.	3.8K	3	0000	0	
CHN	43	1	0018	0000	8	64 416	6 49.0'S	57 22.0'E	1	330.67	0007	2776.	2826.	025G	13	0000	0	
CHN	43	1	0020	0000	8	64 417	7 2.0'S	59 22.0'E	1	330.79	0008	3127.	2984.	004G	13	0000	0	
CHN	43	1	0026	0000	8	64 424	17 22.5'S	59 10.0'E	1	366.79	0011	830.	792.	454G	13	0000	0	
CHN	43	1	0035	0000	8	64 510	14 34.0'S	60 21.0'E	1	365.40	0012	55.	55.	4.5K	13	0000	0	
CHN	43	1	0037	0000	8	64 511	13 35.0'S	61 12.0'E	1	365.31	0013	2131.	2131.	1.6K	13	0000	0	
CHN	43	1	0039	0000	8	64 512	13 22.5'S	60 57.0'E	1	365.30	0014	1455.	1455.	340G	13	0000	0	
CHN	43	1	0044	0000	8	64 514	10 50.5'S	60 8.8'E	1	365.00	0016	1320.	1320.	680G	13	0000	0	
CHN	43	1	0052	0000	8	64 517	7 36.3'S	60 12.3'E	1	329.70	0021	3286.	3286.	010G	13	0000	0	
CHN	43	1	0060	0000	7	64 520	6 4.0'S	57 7.0'E	1	330.67	0004	1913.	1913.	007G	13	0000	0	
CHN	43	1	0061	0000	8	64 520	6 .0'S	57 5.0'E	1	330.67	0022	1763.	1763.	075G	13	0000	0	
CHN	43	1	0063	0000	8	64 521	5 14.0'S	55 19.5'E	1	330.55	0023	1497.	1497.	3.9K	13	0000	0	
CHN	43	1	0070	0000	8	64 6 5	16 4.0'N	41 25.0'E	5	68.61	0025	1175.	1136.	707G	21	0000	0	RED SEA
CHN	43	1	0073	0000	8	64 6 9	17 50.0'N	40 12.0'E	5	68.70	0028	1203.	1203.	227G	21	0000	0	RED SEA
CHN	43	1	0076	0000	8	64 6 9	28 53.0'N	32 58.0'E	5	105.82	0029	49.	49.	002K	21	0000	0	
CHN	43	1	0078	0000	8	64 617	33 24.5'N	35 12.0'E	5	141.35	0030	49.	49.	005K	2	0000	0	
CHN	43	1	0079	0000	8	64 617	33 23.0'N	35 7.0'E	5	141.35	0031	577.	577.	113G	4	0000	0	
CHN	43	1	0086	0000	8	64 7 8	43 36.0'N	9 24.0'E	5	180.39	0032	946.	946.	012K	4	0000	0	
CHN	43	1	0088	0000	8	64 711	43 22.0'N	8 37.2'E	5	180.38	0033	2478.	2478.	3.1K	4	0000	0	
CHN	43	1	0093	0000	8	64 718	42 46.6'N	7 37.5'E	5	180.27	0035	2674.	2674.	794G	6	0000	0	
CHN	43	1	0094	0000	8	64 718	42 46.5'N	7 37.5'E	5	180.27	0036	2674.	2674.	075G	6	0000	0	
CHN	43	1	0104	0000	8	64 8 8	45 11.0'N	27 56.0'W	4	147.57	0037	2697.	2527.	048K	16	0000	0	
CHN	43	1	0107	0000	8	64 8 9	44 34.0'N	28 9.2'W	4	147.48	0038	3264.	3264.	3.3K	16	0000	0	
CHN	43	1	0112	0000	8	64 812	42 39.3'N	28 59.1'W	10	147.28	0040	1628.	1628.	095G	16	0000	0	
CHN	43	1	0113	0000	8	64 812	42 42.4'N	29 1.5'W	10	147.29	0041	1829.	1684.	024K	16	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 43 STATION see below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 3	DREDGE 1										
	Calc. ooze	455g		rich in forams							
STATION 6	DREDGE 3										
	Calc. ooze	2g		rich in forams and pteropods							
STATION 8	DREDGE RD-4										
	Mn pavement	3.4K		mostly pavement - some clay encrusted with heavy Mn.							
	Gabbro	2 K	F	-	-	-	-	5 mm	H	heavily chloritized	
STATION 11	DREDGE RD-5										
	Mn nodules	5.9K									
	Calc. ooze	230g									
STATION 17	DREDGE PD-1										
	calc.ooze	3.2K		sand-sized fragments of shells and forams.							
	biogenic gravel	680g		pebble sized coral and shell fragments and a few basalt? chips.							
STATION 18	DREDGE RD-7										
	Calc. ooze	25g		indurated calc. ooze							
STATION 20	DREDGE RD-8										
	Foram sand	4g									

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 43 STATION see below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 26	DREDGE RD-11										
	Algal limestone	450g									
STATION 35	DREDGE RD-12										
	Algal limestone	2K									
	Biogenic sand	2.5K		Coarse calc. sand, mostly weathered shell fragments.							
STATION 37	DREDGE RD-13										
	Biogenic sand	1.6K		fine calc. sand with many spicules.							
STATION 39	DREDGE RD-14										
	Foram sandstone	115g									
	Algal limestone	230g									
STATION 44	DREDGE RD-16										
	Foram sandstone	680g		heavily burrowed with thin Mn coating.							
STATION 52	DREDGE RD-21										
	Limestone	8g		fragments							
	Basalt?	2g		one pebble							
STATION 61	DREDGE RD-22										
	Sponges	15g		branching type							
	Calc. ooze	60g		indurated							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 43 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 63	DREDGE RD-33										
	Limestone	3.2K		low density, heavily burrowed, Mn encrusted.							
	Limestone	680g		low density, burrowed, small chunks.							
	Sponges	13g		branching type							
STATION 70	DREDGE RD-25										
	Algal limestone	680g									
	Calc. ooze	27g		pale brown with pteropods							
STATION 73	DREDGE RD-28										
	Clinker coal	227g		calc. encrustations							
STATION 76	DREDGE RD-29										
	Calc. ooze			semi-indurated pale brown with shell fragments							
STATION 78	DREDGE RD-30										
	Calc. ooze	2.7K		dark brown with shell fragments							
	Biogenic sand	2.3K		shell hash and coral debris							
STATION 79	Clay	113g		silty, slightly calc.							
STATION 60	DREDGE PD-4										
	Biogenic sand	7g		foram sand and calcareous concretions							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 43 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 86	DREDGE RD-32										
	Greenstone	6K	A	chlorite?		-	-	-	-	serpentinized	
	Calc. ooze	455g		foram rich							
	Coral debris	800g		some cementation							
	Gravel	4.2K		mixed gravel and cobbles; talc, metasedimentary conglomerates, clinker, greenstone, schists?							
	Biogenic sand	80g		calc. ooze partially cemented, shell hash and coral debris							
STATION 88	DREDGE RD-33										
	Coral	1.7K		Mn coated corals cemented with calc. ooze							
	Coral debris	1.4K									
STATION 93	DREDGE RD-35										
	Calc. ooze	800g									
STATION 94	DREDGE RD-36										
	Calc. ooze	75g									
STATION 112	DREDGE RD-40										
1	Basalt	80g	A	-	-	-	-	.5 mm	M-H	trace palogonite	
2	Calc. ooze	15g		burrowed and very consolidated							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 43 STATION 104 DREDGE RD-37 DESCRIBED BY BRODA/FARMER DATE

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
24	Basalt	1.0	A		7% ol.	15	C	.2 mm	L		
18	Basalt	1.8	A		3% ol. 5% ol.	20	tr		L		large vesicles, coarse plag. phenocrysts.
7	Basalt	1.0	A		tr Pg	20	tr	-	L		large vesicles
6	Basalt	1.4	A		tr ol., tr Pg.	6%	tr	.2	L		
17	Basalt	2.0	A		12% ol.	7	-	.3 mm	L	slight palagonite rind	
14	Basalt	.8	A		1% ol. tr Pg.	1%	-	.3 mm	L		
3	Basalt	.7	A		4% ol. tr Pg.	4%	tr	.2	L		
16	Basalt	2.1	A			2%	-	.3	F		
15	Basalt	.4	A			20	-	.3	L		
19	Basalt	.2	A		20% Pg, 5% ol. tr px	3%	-	.2	L		plag. phenocrysts very la
13	Basalt	2.3	A			1%		.5	L		
47	Basalt	.4	A		3% ol.	20%		.3	L		
41	Basalt	.4	A		2% Pg.	15%		.3	L		
12	Basalt	1.2	A		-	tr		.01	F		
49	Basalt	.9	A		7% ol.	10%		.2	L		
53	Basalt	.5	A		10% ol.	12%		.3	L		ol. phenocrysts large
9	Basalt	1.3	A		2% Pg, 2% ol.	3%		.1	L		
64	Basalt	.4	A			2%		.2	L	trace of palagonite rind on glass	

WHOI ROCK SAMPLE DESCRIPTION

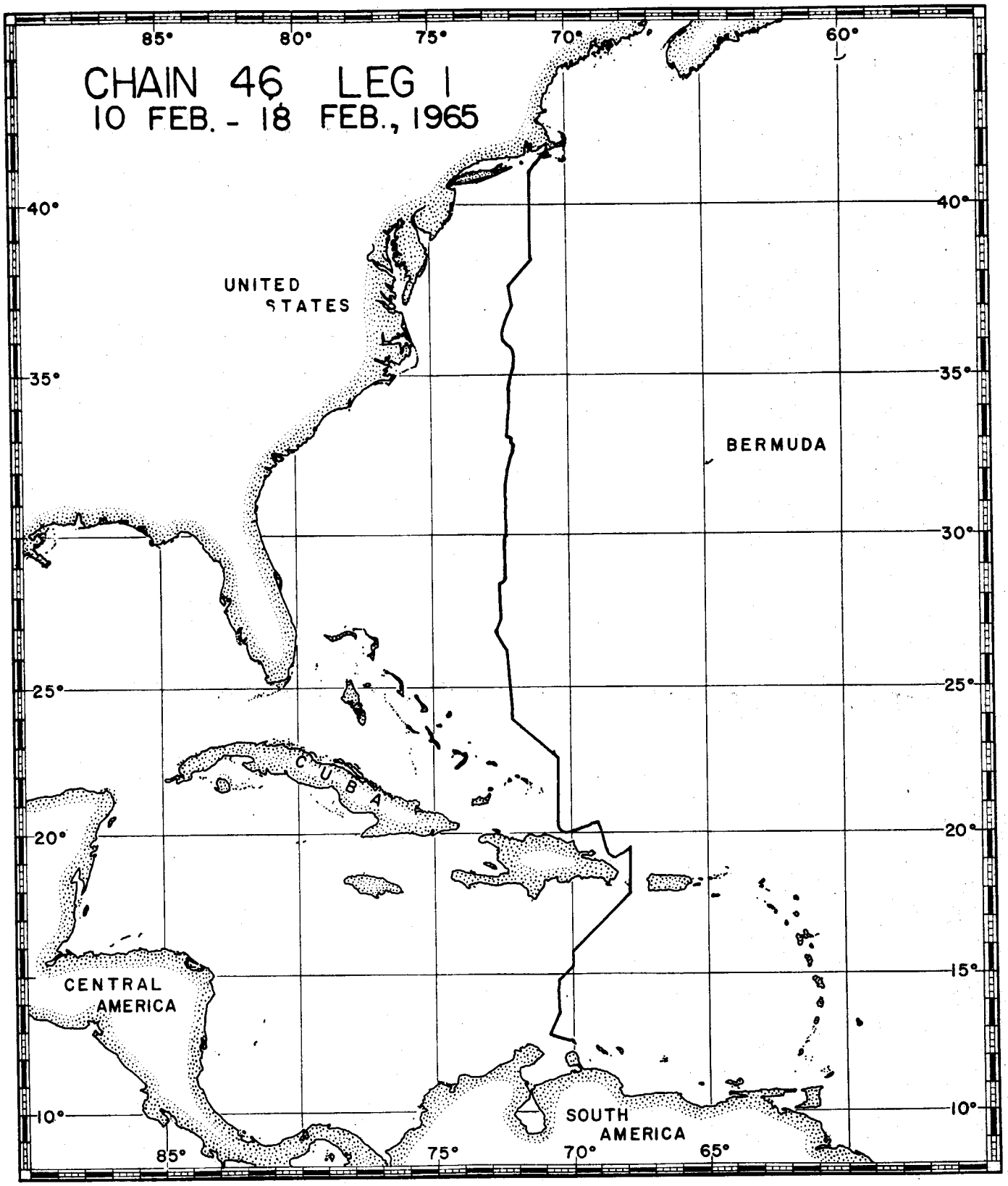
CRUISE CHAIN 43 STATION 104 DREDGE RD-37 DESCRIBED BY BRODA/FARMER DATE

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
66	Basalt	.5	A		tr Pg.	10%		.2	L		
11	Basalt	.8	A			4%		-	F		
68	Basalt	.7	A		tr Pg.	4		.3	L		
69	Serpentine	.5		Magnetite		-		.1	F		
70	Basalt	.5	A			7%	-	.2	L		
61	Basalt	.6	A			tr	-	.2	L		
80	Basalt	1.4	A		15 Pg. coarse 5% ol.	7%	S	.5	L		
73	Basalt	.7	A		3% ol., 2% Pg.	8%	tr	.1	F	glassy rind w/palagonite	
	Basalt	21.3	A		numerous slabs and small					numbered samples.	
	Calc. ooze	1.4		indurated glassy fragments with inclusions of glassy fragments.							
	Erratics	1.7		granite, schists, phyllite							
STATION 107	DREDGE RD-38										
1, 9	Erratics	570g		granites, shale and dense limestone							
2-8	Glassy basalt	2.7	A			0-tr	-	-	VF	some palagonite	variolitic

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 43 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 113	DREDGE RD-41										
1	Erratic	2.7K		?	-	-	-	.5 mm			no reaction with HCl - maybe quartzite?
	Erratics	1.8K		rounded Mn coated erratics - granite, quartzite							
	Sandstone?	3.6K		weird! relatively planar fragments composed of rounded sand grains cemented with							
				calcite, covered on both sides by 1cm of thick calcite crust.							
	Coral	13K		Mn coated							
	Biology	300g		corals and animals stored in jars							


CHAIN 46 LEG 1
10 FEB. - 18 FEB., 1965
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA
65°

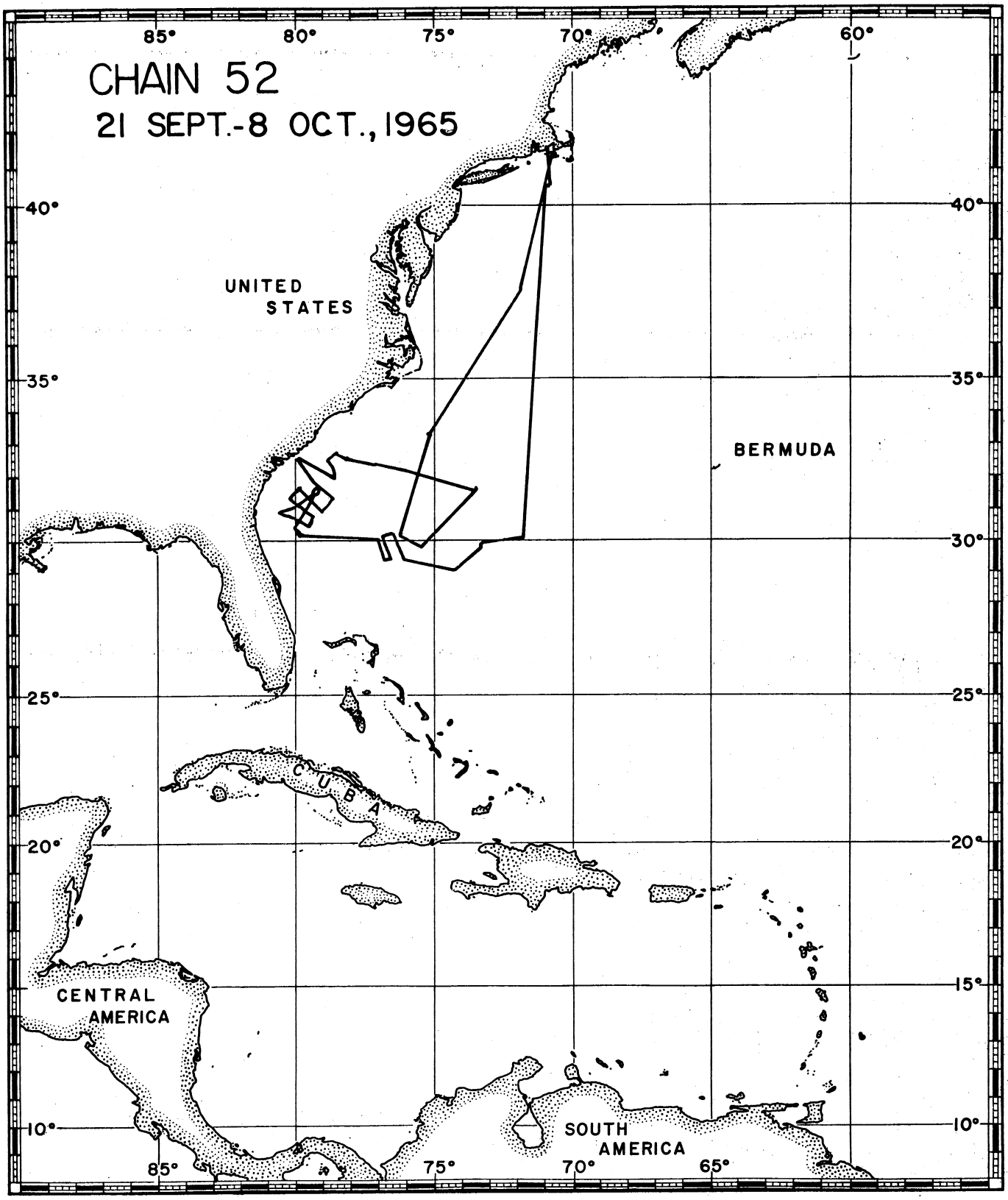
*************** STATION DATA RETRIEVAL *************** PAGE 1
*************** DATE: 08:52 SEP 21,'81 *************** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	46	1	0002	0000	8	65 222	18 49.9'N	67 19.3'W	5	43.87	0001	3572.	3288.	005K	25	0000	0	
CHN	46	1	0003	0000	8	65 222	18 47.5'N	67 22.8'W	5	43.87	0002	4830.	4801.	004K	25	0000	0	
CHN	46	1	0005	0000	8	65 223	18 49.2'N	67 28.6'W	5	43.87	0003	4318.	3723.	680G	25	0000	0	
CHN	46	1	0011	0000	7	65 4 6	30 12.2'N	77 50.0'W	5	116.07	0004	819.	818.	1.1K	7	0000	0	
CHN	46	1	0012	0000	7	65 4 6	30 25.9'N	77 52.0'W	5	116.07	0005	815.	815.	1.4K	7	0000	0	
CHN	46	1	0015	0000	7	65 4 7	30 43.8'N	78 5.0'W	5	116.08	0006	875.	875.	1.4K	7	0000	0	
CHN	46	1	0018	0000	7	65 4 7	30 50.0'N	78 11.0'W	5	116.08	0007	843.	843.	7.7K	7	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 46 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 2	Limestone	4.6K		Limestone cobbles							
	Limestone	340G		Mn coated cobbles							
STATION 3	Limestone	4.1K		Limestone cobbles, some fossils present							
STATION 5	Calc. mudstone	680G									
STATION 11	Calc. sand	1.1K		beautiful pteropod, foram sand							
STATION 12	Calc. sand	1.4K		mainly pteropods and forams							
STATION 15	Foram sand	680G									
	Mn & Phosphorite	680G		mostly rounded Mn slabs, minor phosphorite nodules							
STATION 18	Mn	7.2K		rounded Mn slabs							
	Sponge	450G		sponge with Mn inclusions							


CHAIN 52
21 SEPT.-8 OCT., 1965
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
65°
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA

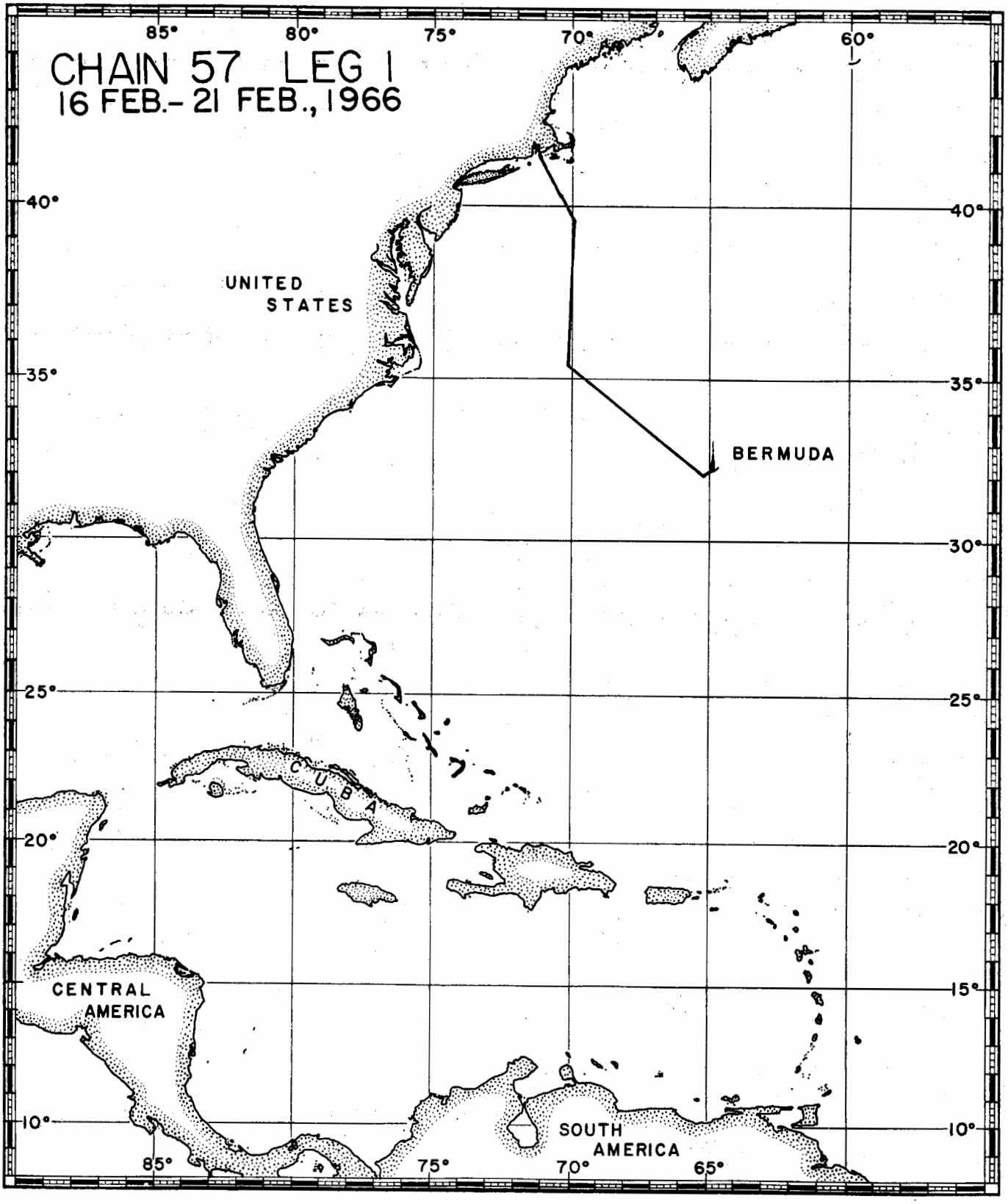
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	52	1	0001	0000	7	65 927	30 1.0'N	76 43.2'W	5	116.06	0001	1269.	1267.	1.4K	7	0000	0	
CHN	52	1	0004	0000	7	65 929	31 45.2'N	79 8.7'W	5	116.19	0002	528.	528.	1.6K	7	0000	0	
CHN	52	1	0005	0000	7	65 929	31 40.5'N	79 12.0'W	5	116.19	0003	509.	509.	1.8K	7	0000	0	
CHN	52	1	0007	0000	7	65 929	31 35.1'N	79 13.9'W	5	116.19	0004	464.	458.	010G	7	0000	0	
CHN	52	1	0008	0000	7	65 930	31 36.6'N	79 17.0'W	5	116.19	0005	453.	453.	2.3K	7	0000	0	
CHN	52	1	0009	0000	7	65 930	31 38.5'N	79 21.7'W	5	116.19	0006	528.	519.	1.9K	7	0000	0	
CHN	52	1	0011	0000	8	6510 1	32 5.3'N	78 50.0'W	5	116.28	0007	383.	398.	042K	7	0000	0	
CHN	52	1	0012	0000	7	6510 3	32 11.3'N	75 51.0'W	5	116.25	0008	2560.	2566.	1.5K	7	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 52 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 1	Calc. ooze	1.4K		gray silty clay with pteropods, sponge spicules and forams							
STATION 4	Loose conglo-merate	1.6K		coarse calc sand and gravel composed of forams, pteropods, corals, pelecypods, gastropods							
				urchin spines, and sponge spicules.							
STATION 5	Calc. sand	1.8K		coarse calc sand of forams, solitary and colonial corals, urchin spines, sponge							
				spicules and phosphorite nodules.							
STATION 7	Coral	10G		very well preserved coral and sea fans, alive when captured							
STATION 8	Loose conglo-merate	2.3K		coarse calc. sand of forams, pteropods, coral fragments, urchin spines and sponge spicules							
STATION 9	Loose conglo-merate	1.9K		coarse calc. sand of forams, coral, pelecypods, gastropods, urchins and Mn micronodules.							
STATION 11	Calc. sand	1.2K		coral and foram sand							
	Phosphorite slabs	41K		some with small limestone inclusions							
STATION 12	Calc. ooze	1.5K		gray silty calc. ooze with a brittle star and several echinoid tests							


CHAIN 57 LEG 1
16 FEB.- 21 FEB., 1966
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA
85°
75°
70°
65°

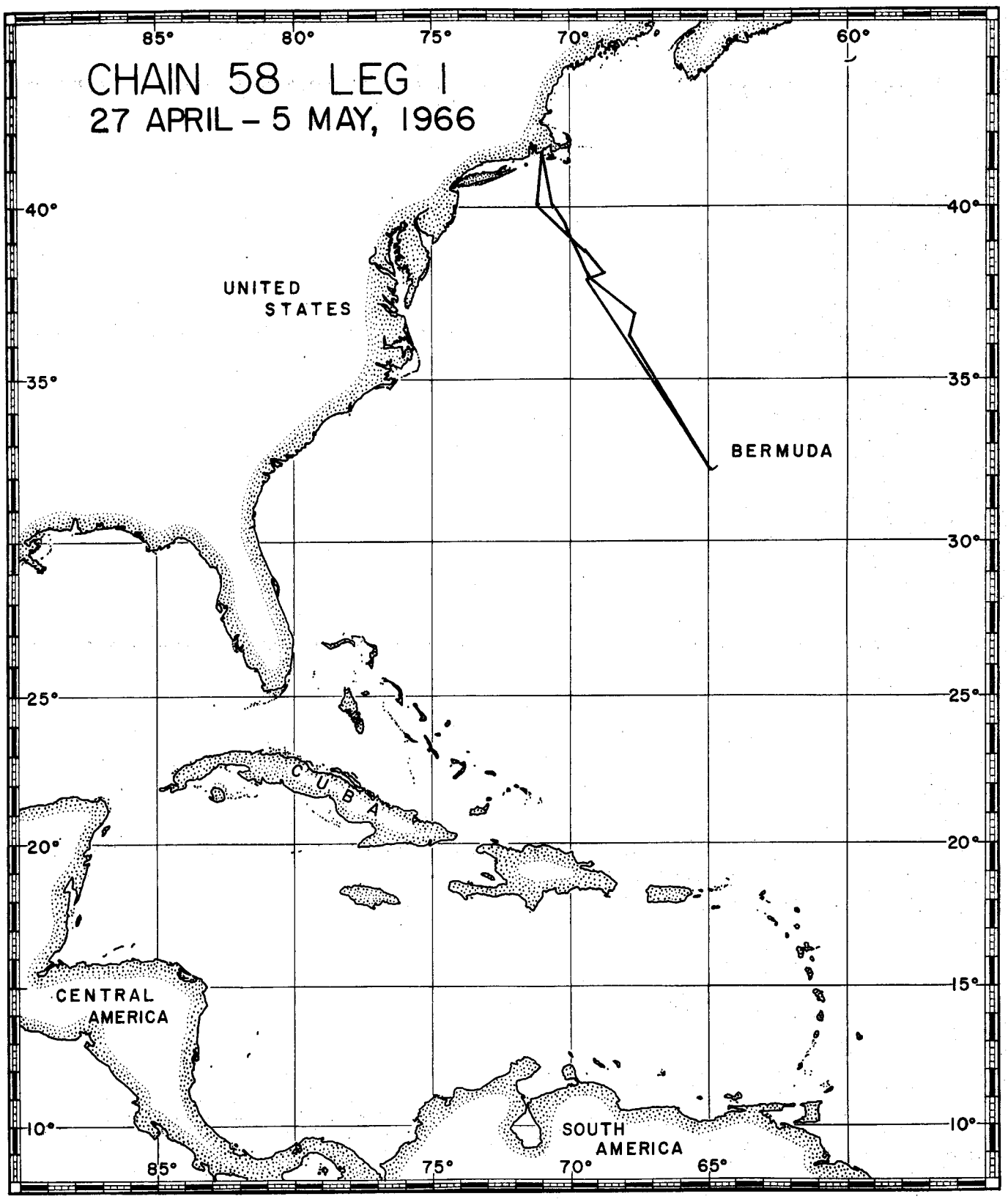
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	57	1	0019	0000	8	66 322	20 2.3'N	66 7.5'W	4	79.06	0001	7183.	6671.	002K	17	0000	0	
CHN	57	1	0020	0000	7	66 322	20 1.5'N	66 10.0'W	5	79.06	0001	6807.	6671.	1.3K	17	0000	0	
CHN	57	1	0027	0000	8	66 4 4	19 58.8'N	64 15.2'W	5	43.94	0002	6710.	6572.	227G	17	0000	0	
CHN	57	1	0031	0000	7	66 4 7	20 3.9'N	65 51.0'W	4	79.05	0002	7457.	7145.	340G	17	0000	0	
CHN	57	1	0033	0000	8	66 4 7	19 47.8'N	67 8.7'W	5	43.97	0004	7912.	7667.	340G	17	0000	0	
CHN	57	1	0034	0000	7	66 4 7	19 58.0'N	68 4.0'W	5	43.98	0003	5690.	5612.	004K	17	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 57 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 19	Mudstone	1K		calcareous							
	Mudstone	1K		nonclcareous							
STATION 20	Red clay	1K									
	Gravel	220G		gabbro and greenstone fragments							
STATION 27	Red clay	220G									
STATION 31	Red Clay	340G									
STATION 33	Red Clay	340G									
STATION 34	Chert	1.9K									
	Red Clay	1.8K									
	Gravel	220G		mud fragments and chert pieces							


CHAIN 58 LEG 1
27 APRIL – 5 MAY, 1966
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
65°
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA

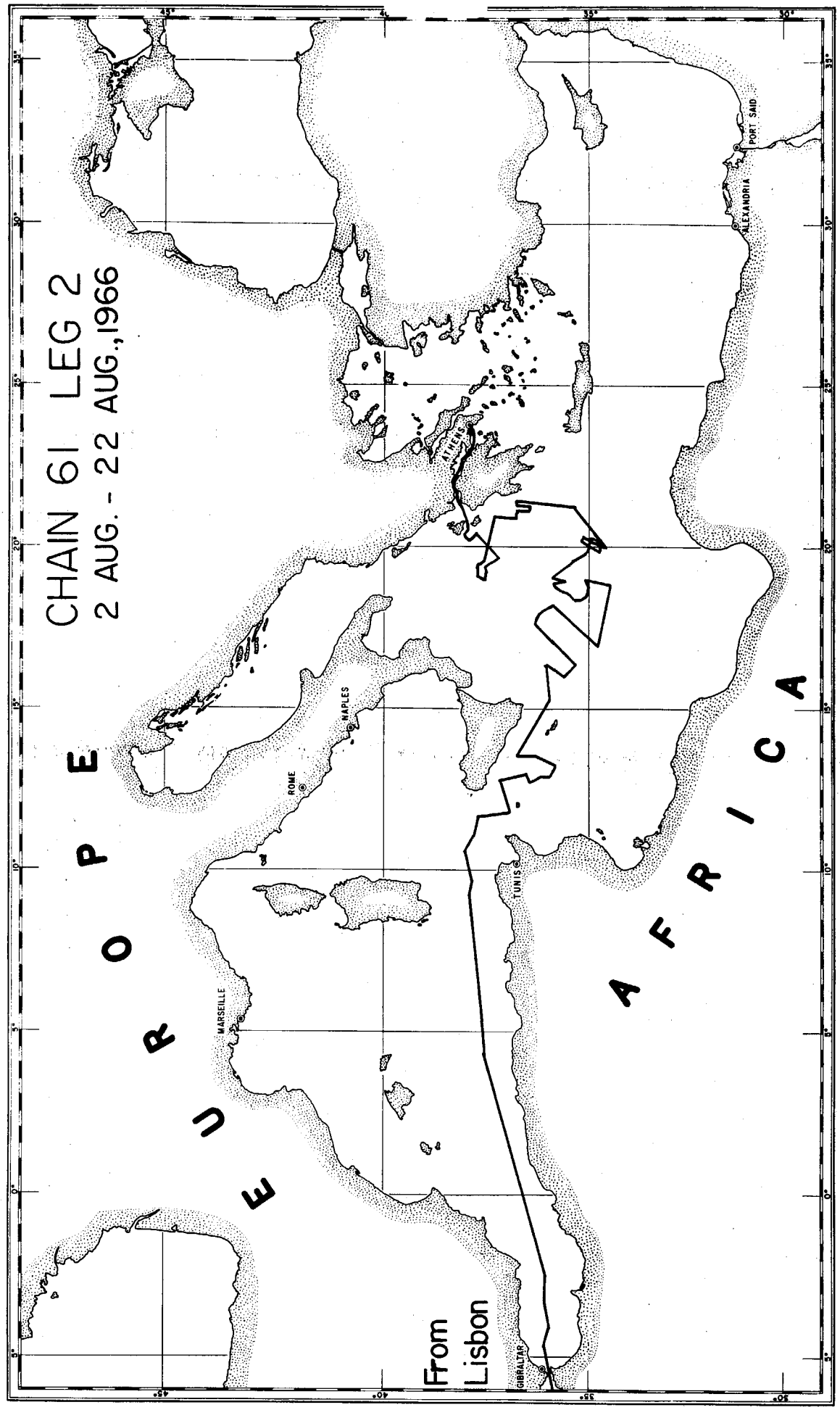
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

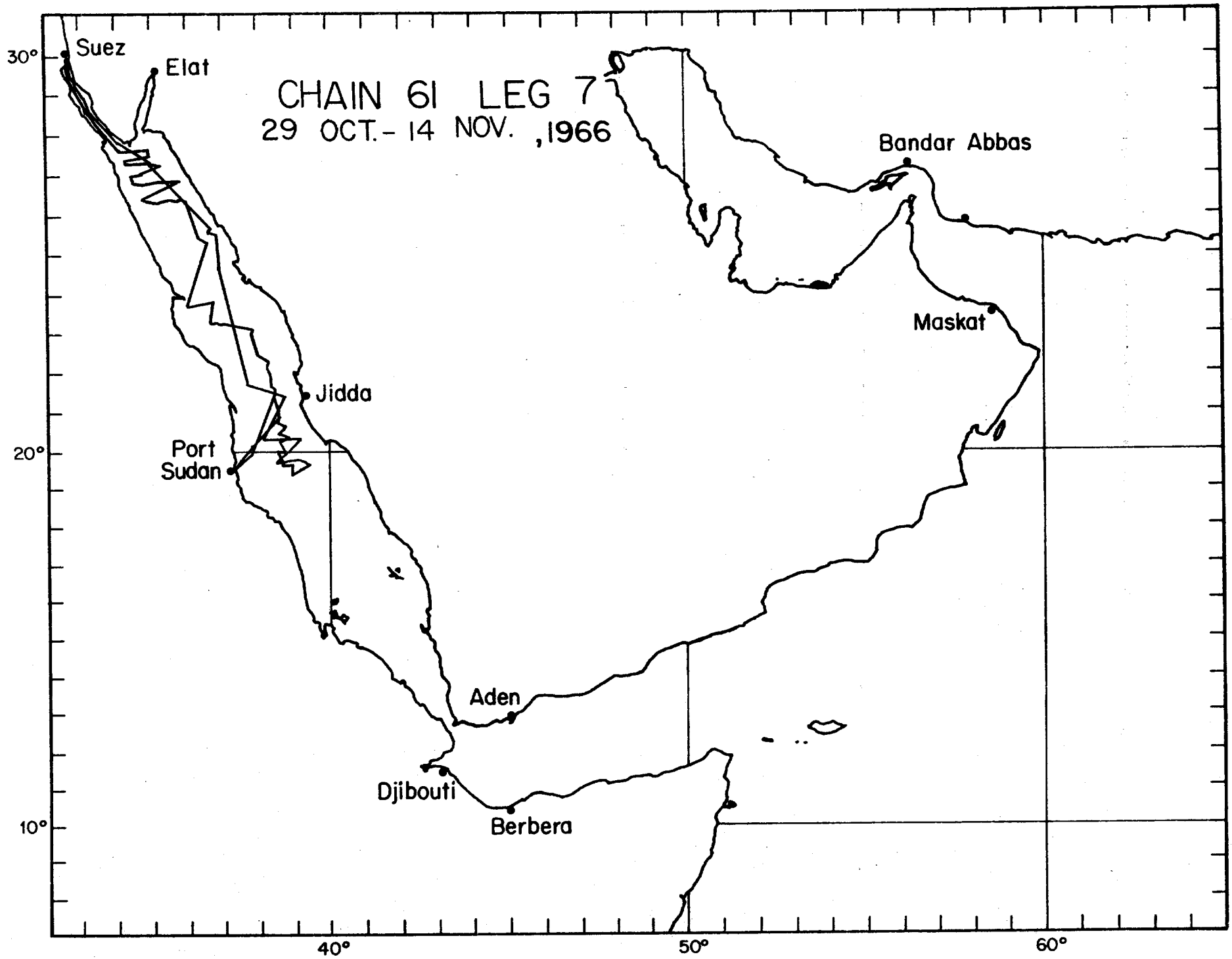
SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE- VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS- DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO- GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	58	1	0100	0000	8	66 5 1	33 56.8'N	65 47.0'W	1	115.35	0009	4743.	4892.	035K	13	0000	0	
				COMMENTS			DEVICE: EPIBENTHIC TRAWL											

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 58 STATION 100 DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	Mn nodules	35K		raspberry framboid-like surface texture							


CHAIN 61 LEG 2
2 AUG. - 22 AUG., 1966
EUROPE
AFRICA
From Lisbon
GIBRALTAR
MARSEILLE
ROME
NAPLES
ATHENS
TUNIS
ALEXANDRIA
PORT SAID


CHAIN 61 LEG 7
29 OCT.- 14 NOV. ,1966
Suez
Elat
Bandar Abbas
Maskat
Jidda
Port Sudan
Aden
Djibouti
Berbera
30°
20°
10°
40°
50°
60°

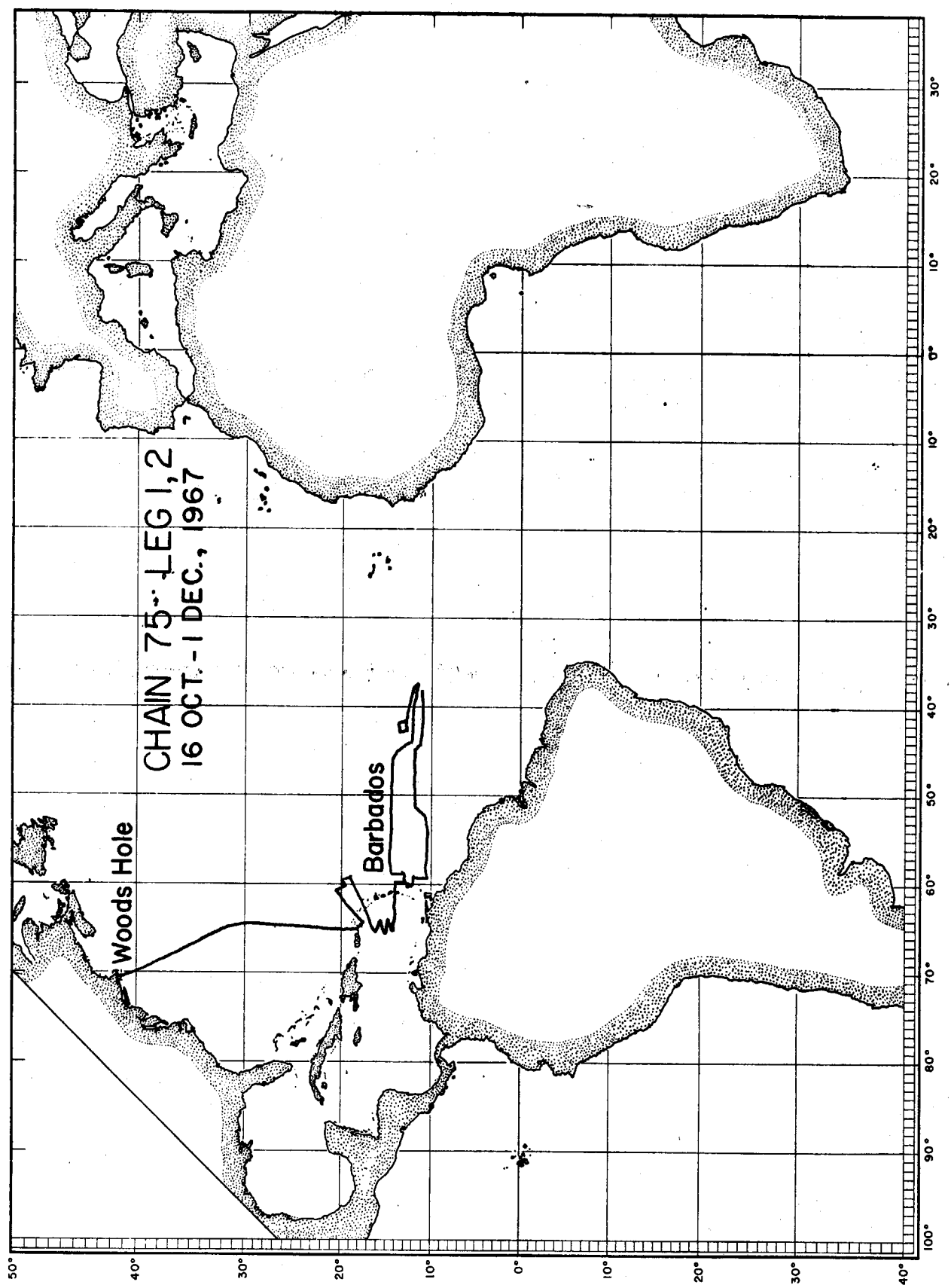
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	61	2	0021	0000	8	66 8 9	36 13.5'N	13 24.6'E	6	143.63	0001	1268.	1268.	113G	21	0000	0	
CHN	61	7	0145	0000	8	6611 2	21 22.0'N	38 4.2'E	10	105.18	0002	2130.	2130.	680G	21	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 61 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 21	Calc. ooze	110G		white							
STATION 145	Clay	680G		dark red brown lutite-montmorillonite facies						(?) of hot brine sed.	


CHAIN 75 - LEG 1,2
16 OCT. - 1 DEC., 1967
Woods Hole
Barbados
50°
40°
30°
20°
10°
0°
10°
20°
30°
40°
10°
0°
10°
20°
30°
40°
50°
60°
70°
80°
90°
100°

********** STATION DATA RETRIEVAL **********
********** DATE: 08:52 SEP 21,'81 **********

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	75	1	0003	0000	8	671029	15 29.0'N	64 5.0'W	4	43.53	0001	1086.	1215.	454G	13	0000	0	
CHN	75	1	0005	0000	8	671030	14 42.5'N	63 36.5'W	4	43.43	0002	1239.	1454.	6.6K	13	0000	0	
CHN	75	2	0021	0000	8	671121	12 50.3'N	44 42.2'W	10	41.24	0003	2126.	1585.	8.8K	14	0000	0	
CHN	75	2	0022	0000	8	671121	12 52.7'N	44 50.9'W	10	41.24	0004	4630.	4438.	340G	16	0000	0	
CHN	75	2	0023	0000	8	671121	12 58.4'N	44 51.3'W	10	41.34	0005	4581.	4515.	227G	16	0000	0	
CHN	75	2	0025	0000	8	671122	12 58.8'N	44 58.5'W	10	41.34	0007	2333.	3162.	012K	14	0000	0	
CHN	75	2	0026	0000	8	671122	12 55.8'N	44 59.8'W	10	41.25	0008	2784.	2841.	009K	14	0000	0	
CHN	75	2	0027	0000	8	671122	12 58.0'N	44 41.1'W	10	41.24	0009	3256.	3049.	454G	14	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 75 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 3	DREDGE 1										
1	Manganese	340G		Dense shiny angular Mn fragments with volcanic						fragments & phillipsite in interior cavities	
2	Calc. ooze	110G		pale brown with pteropods and forams							
STATION 5	DREDGE 2										
	Coral	6.4K		primarily coral (a bit of sponge) with Mn. coating							
	Manganese	2.4K		1 large "rambling" nodule with weathered basalt cobble inclusions							
	Manganese	340G		4 Mn. nodules							
STATION 21	DREDGE 3										
1	Basalt	.2	A			tr		.3	F-L		ropey glass
2	Basalt	.35	A			tr		.2	F-L		
3	Basalt	1.8	A			3%		.2	F-L		
4	Basalt	.2	A			3%		.2	F-L		basalt cobbles stored in tube
5	Glassy basalt	1.6	A		1% Pg.	1%		.2	F-L	most glass gone to Palagonite	
6	Glassy basalt	1.7	A		1% Pg.	1%		.2	F-L	slight Palagonite	
7	Glassy basalt	1.4	A		None	-		.2	F-L		
8	Basalt	1.8	A		tr. Pg.	tr		.2	F-L		
9	Lutite	450G									

WHOI ROCK SAMPLE DESCRIPTION

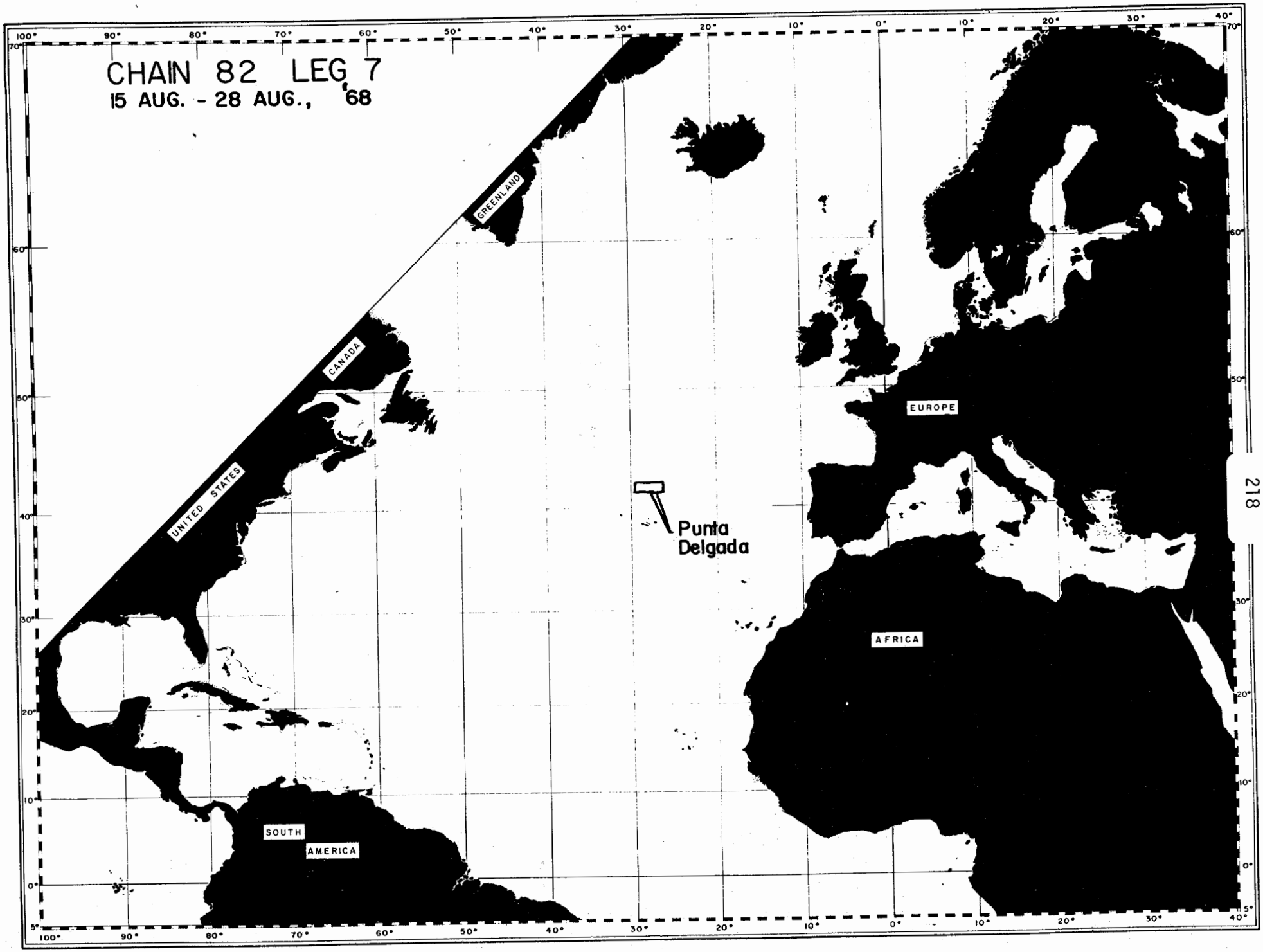
CRUISE CHAIN 75 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

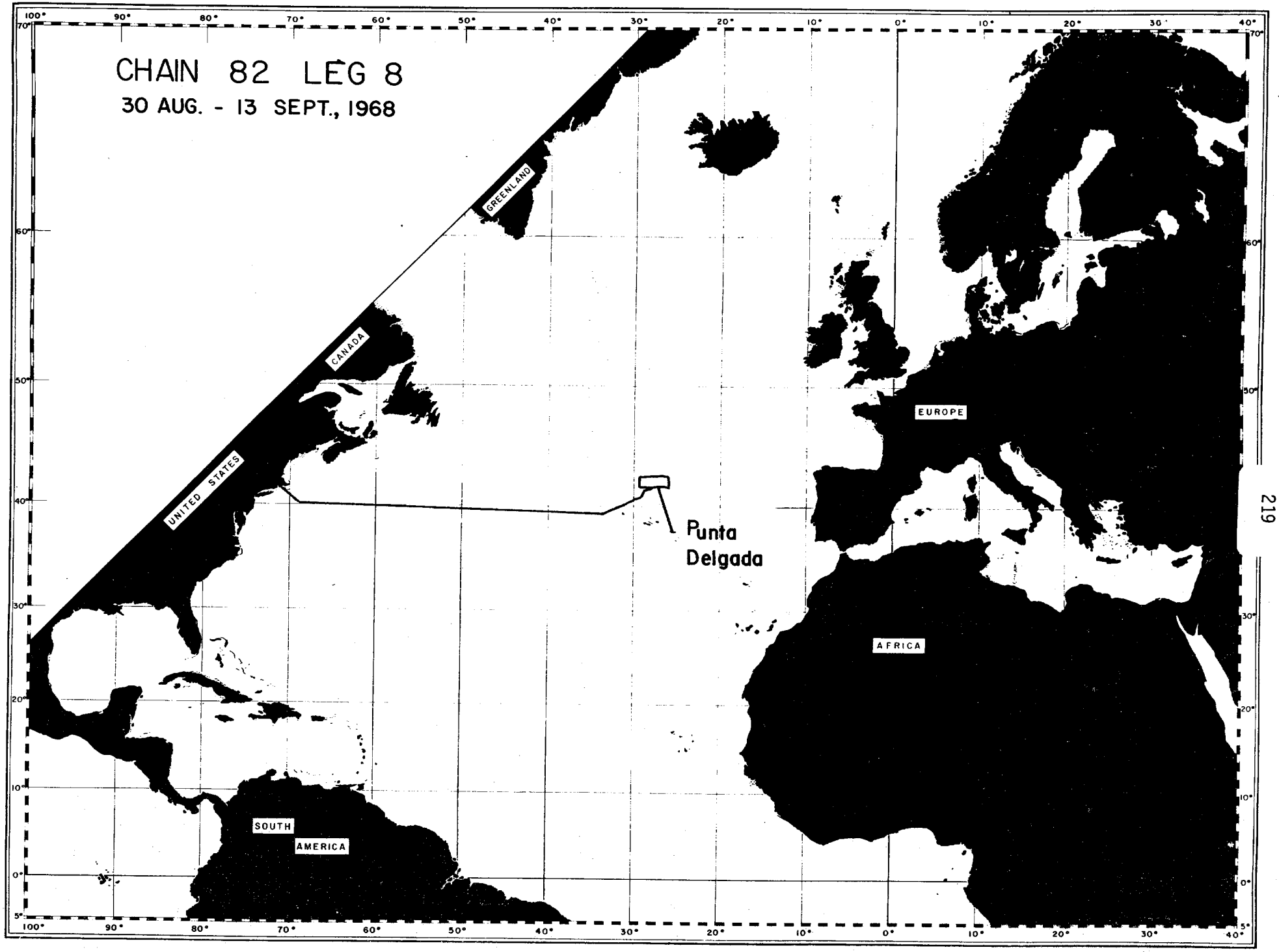
Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 22	DREDGE 4										
	Lutite	340g		Calc. ooze							
STATION 23	DREDGE 5										
	Lutite	230g		Calc. ooze							
STATION 25	DREDGE 7										
1	Greenstone	.2	A				C	.1	L	black mineral in amygdules	
2	Greenstone	.2	A				A	.1	L	black mineral in amygdules	
3	Greenstone	.2	A		4% plag.		C	tr	L	black mineral in amygdules	
4	Basalt	1.0	A		5% plag.	10%	-	.3	L		vesicles large and erratic
5, 6,7	Greenstone	1.0	A				tr	tr	L		
8	Basalt	.6	A		10% plag.(coarse)	3%	-	.3	L	palagonite rind	
12	Greenstone/basalt	.3	A		phen. ?	-	-	-		fascinating fragment of glassy basalt interior is still basalt,but exterior	
										including old half & half.	glass margin is greenstone,
9, 10,11	Greenstone	.8	A			-	A	-	L	black mineral in amygdules	
13	Greenstone	1.8	A			-	-	tr	L	was originally gabbro-remnants of	coarse minerology
14, 15,16	Greenstone	.8	A			-	-	.1	L	several large veins (with magnetite?)	
17,19	Greenstone	.7	A		5% plag., tr. oliv.?	-	C	tr	L		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 75 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 25	DREDGE 7 (Cont'd)										
18, 20	Greenstone	1.0	A			-	-	tr	L		
21	Greenstone	1.5	A			-	A	.3	L		
37,33,30,29, 27,26,25,23, & 22	Greenstone	1.5	A			-	C	.2	L		
28	Basalt	.2	A		tr. plag.	3%	-	.2	L		
STATION 26	DREDGE 8										
1	Basalt	7	A		12% plag. (very coarse)	3%	-	5 mm	L		
STATION 27	DREDGE 9										
1	Lutite	.45		pale brown calc. ooze with forams and pteropods common.							


CHAIN 82 LEG 7
15 AUG. - 28 AUG., '68
GREENLAND
CANADA
UNITED STATES
EUROPE
Punta
Delgada
AFRICA
SOUTH
AMERICA


CHAIN 82 LEG 8
30 AUG. - 13 SEPT., 1968
GREENLAND
CANADA
UNITED STATES
EUROPE
Punta
Delgada
AFRICA
SOUTH
AMERICA

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	82	6	0029	0000	8	68 811	41 55.0'N	29 13.0'W	8	147.19	0001	3112.	3065.	227G	16	0000	0	
CHN	82	7	0034	0000	8	68 823	42 28.5'N	28 41.1'W	8	147.28	0002	1642.	1282.	011K	14	0000	0	
CHN	82	7	0035	0000	8	68 823	42 31.0'N	29 15.0'W	8	147.29	0003	2489.	2471.	5.9K	16	0000	0	
CHN	82	8	0048	0000	8	68 9 2	42 55.4'N	28 55.0'W	8	147.28	0006	1189.	1610.	050K	16	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

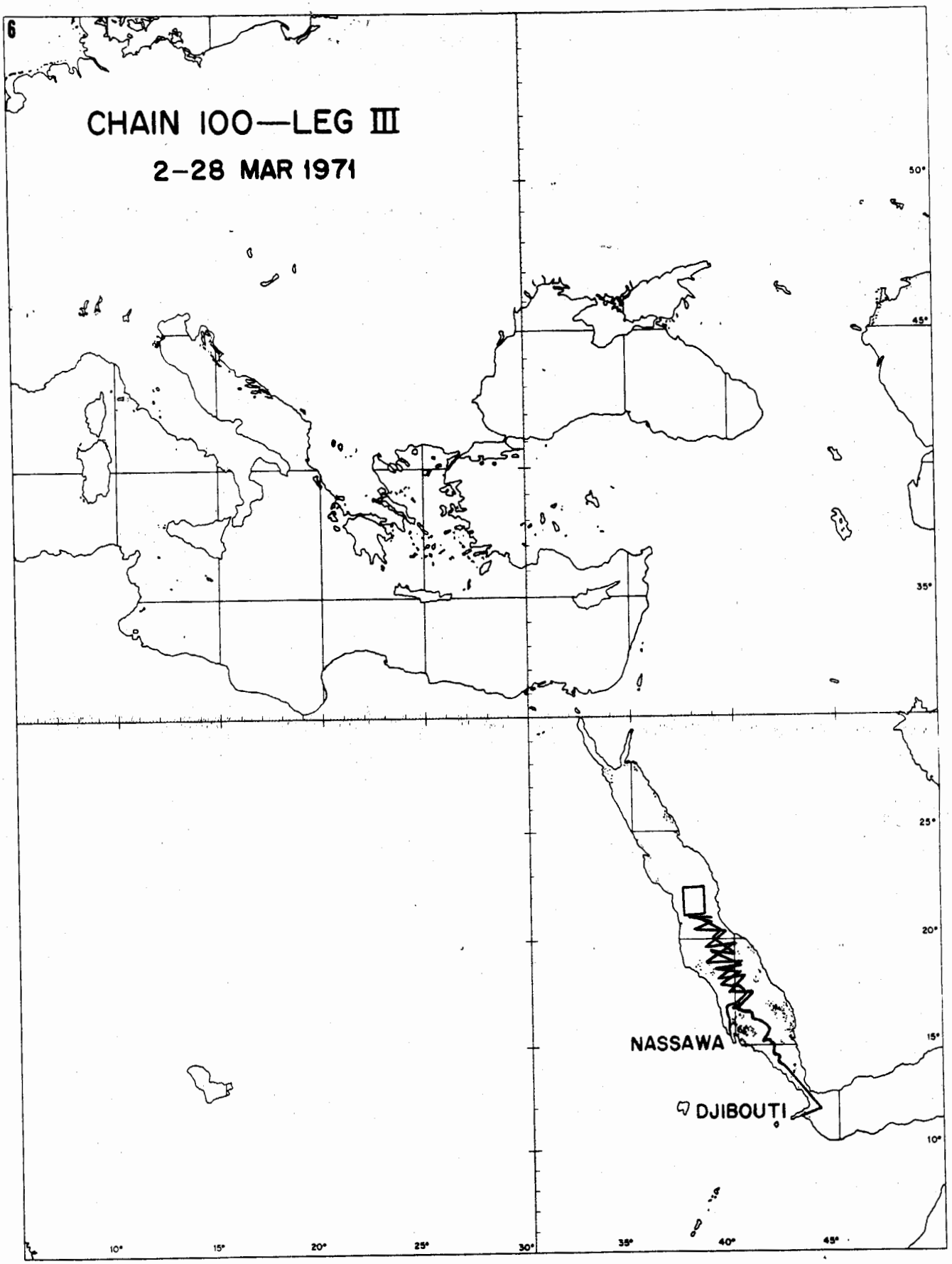
CRUISE CHAIN 82 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

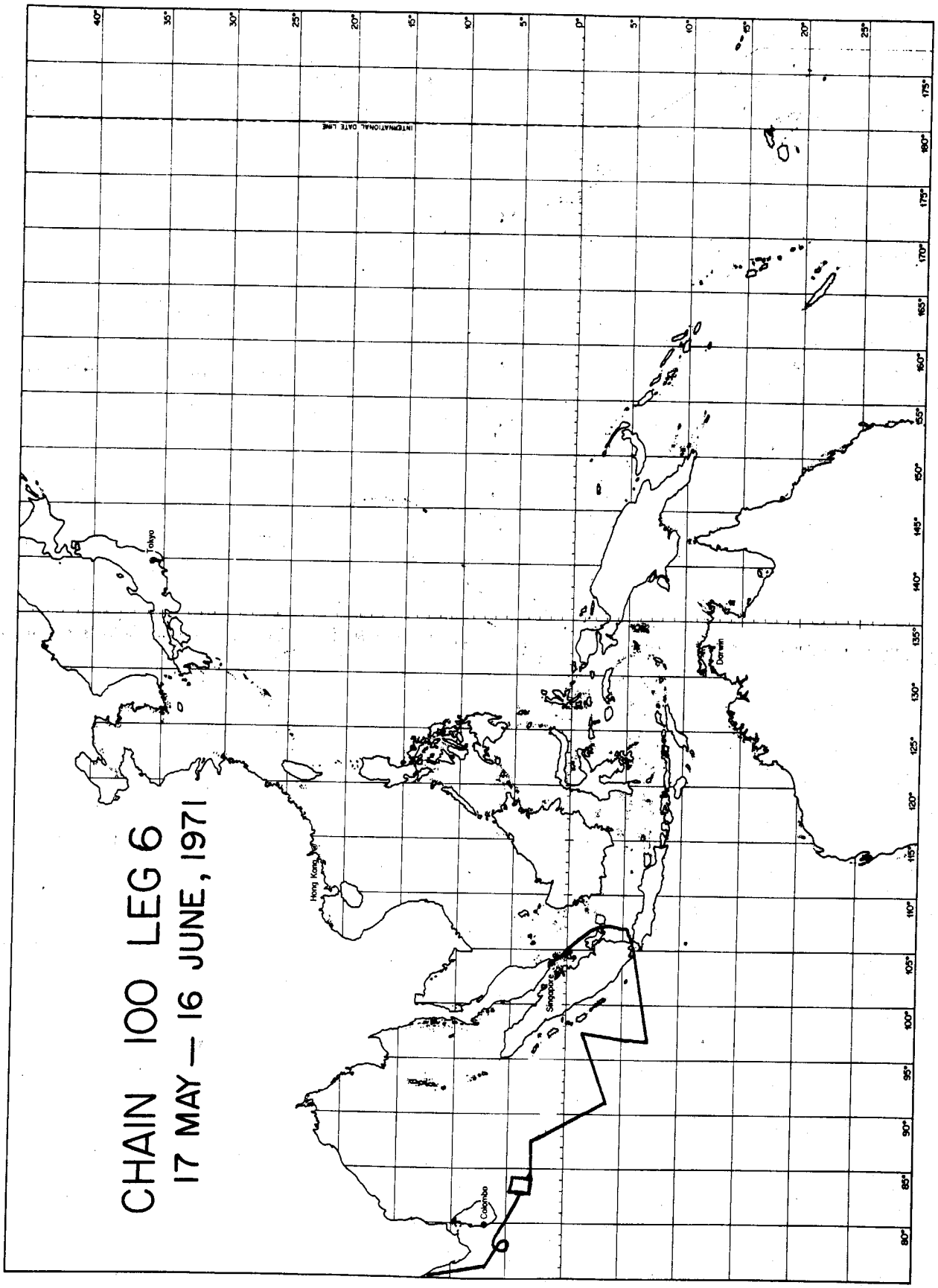
Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 29	DREDGE 1										
-1	Basalt	.2	A	glassy margin	4% plag. (very small)	2%	-	-	F	tr. of palagonite	
STATION 34	DREDGE 2										
100	Basalt	20	A	-		-	-	2 mm	H	appears to be that has weathered dramatically along cooling joints and now looks like conglomerate of basalt cobbles. Calcareous cement holds cobbles now. Considerable palagonite breccia and coral holdfasts.	large lava tube or pillow
-1	Basalt	3	A		5%(?) very weathered	4%	C	2 mm	H		thick $CaCO_3$ encrustation, and coral holdfasts & worm tubes.
-3	Basalt conglomerate	1.5	A		5% (?) very weathered	4%	C	2 mm	VH		
-5	Basalt cobbles	1.1	A		"	4%	C	2 mm	VH		
-2, 4	Basalt	2.5	A		(?) very weathered	2%	C	2 mm	VH		sub-angular cobbles, some with variolitic rinds.
-7	Basalt	.45	A		5% plag. (?) weathered	5%	C	2 mm	VH		
STATION 29											
1	Basalt	.2	A		2% plag. micro phen.	tr			L		glass margin with slight palagonitization
STATION 34											
1	Basalt	3	A		4% plag. weathered	2	C	1-2	H		thick $CaCO_3$ encrustation, coral holdfasts & worm tubes.
2-7	Basalt	6.5	A			tr-4	C	.5-2	H	discolored to yellow-brown	numerous angular small fragments, a few have heavily weathered phenocrysts (?), several have weathered chill margins with varioles.

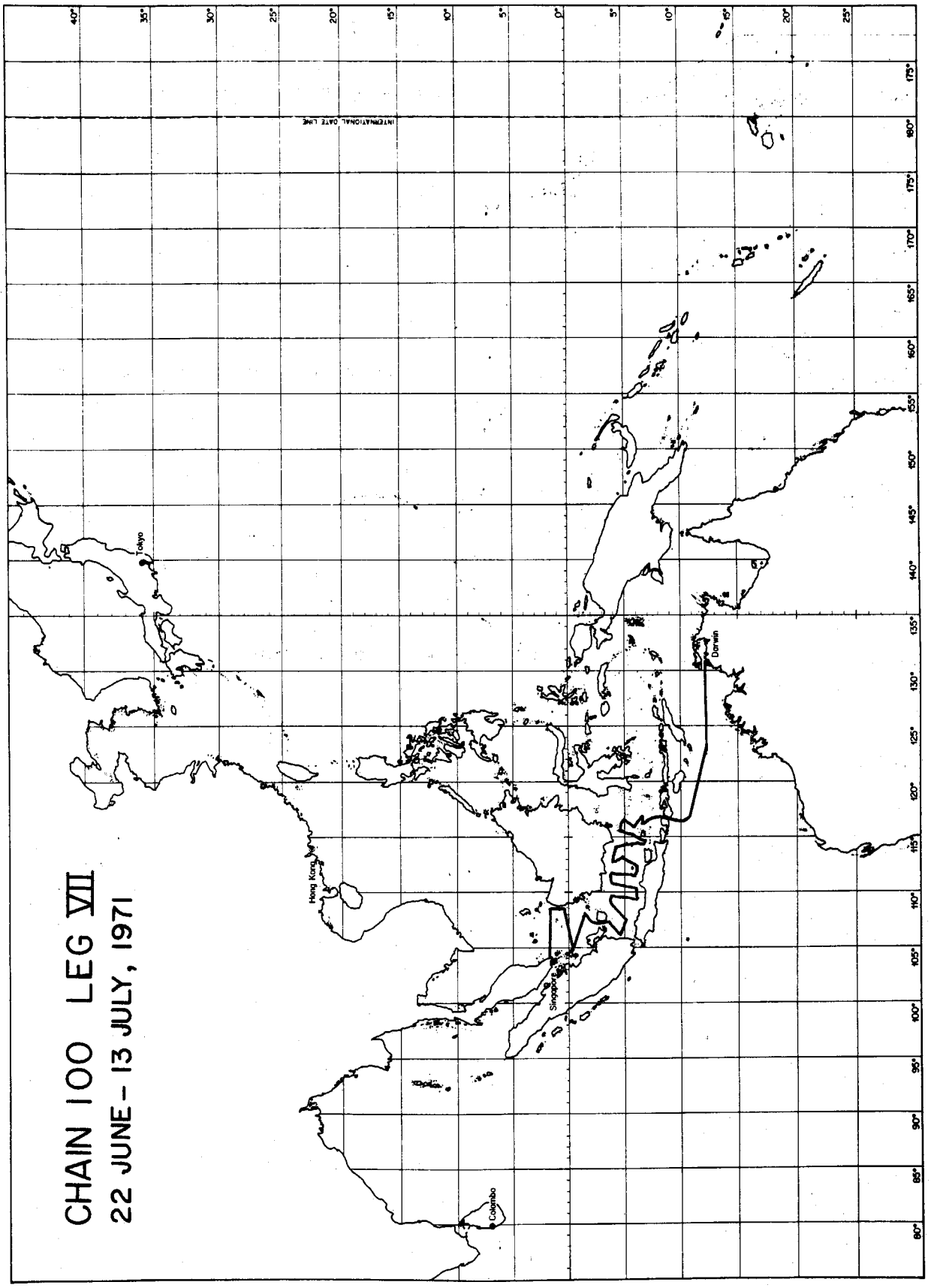
WHOI ROCK SAMPLE DESCRIPTION

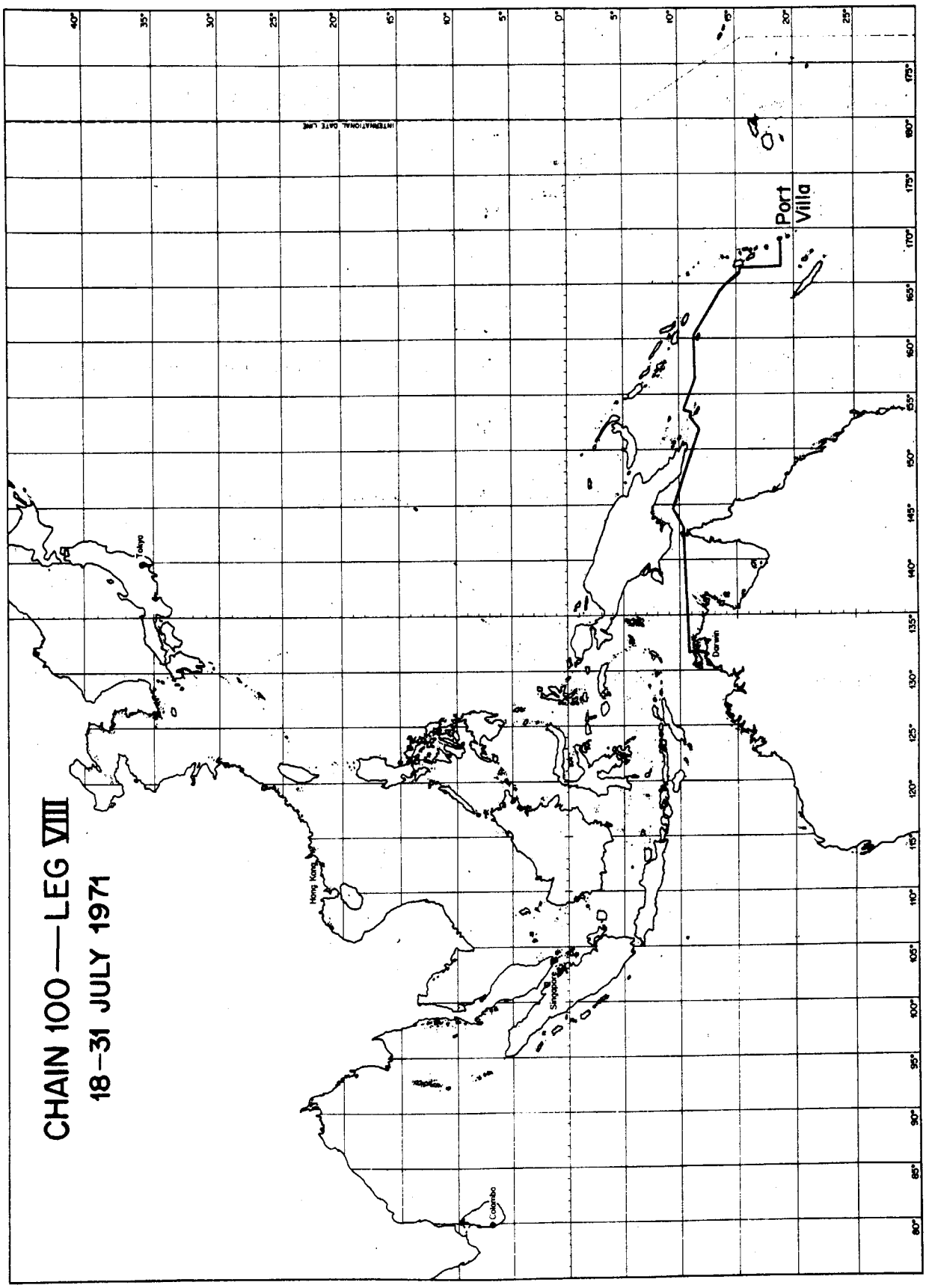
CRUISE CHAIN 82 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

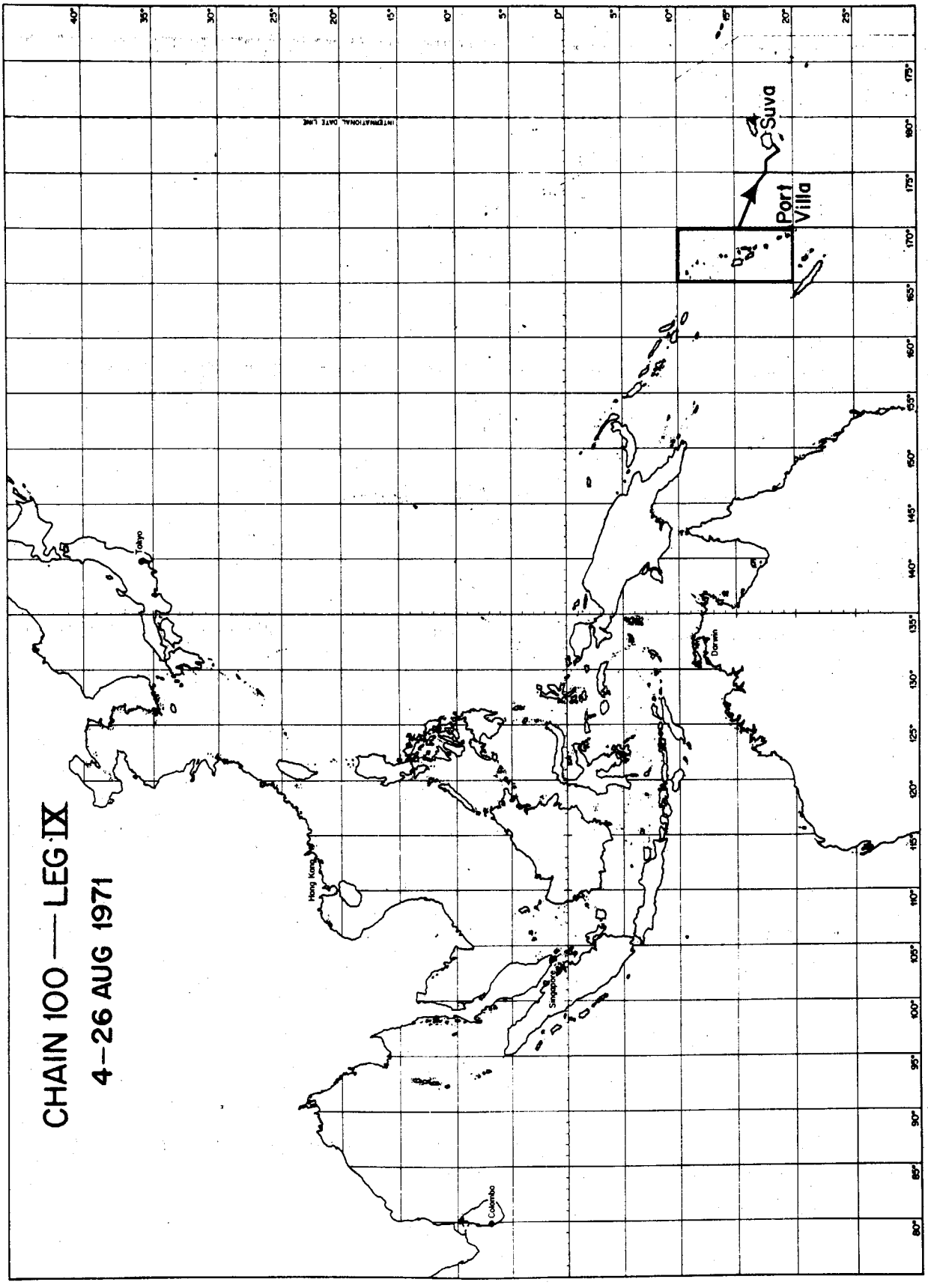
Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 34	(Cont'd)										
100	Basalt conglomerate	20				tr	C	2	H	discolored to yellow-brown	appears to be large lava tube or pillow that has weathered dramatically along cooling joings and now looks like conglomerate of basalt cobbles. Calcareous cement holds cobbles now. Considerable palagonite breccia and coral holdfasts.
NOTE: Sample is on display with other basalts in hallway outside of storage area.											
STATION 35	DREDGE 3										
unnumbered small	Basalt	2.3	A		-	tr		tr	F	many angular fragments, several variolitic in texture, as well as a few with glassy chill margins.	
-1	Basalt	3.6	A				C	tr	M-H	strange weathering pattern throughout; as well as, a curious vein of vescular basalt intrudes lower part of rock.	
STATION 48	DREDGE 6										
1	Basalt conglomerate	12.4				1%	tr	1-3	H-VH	composed of rounded basalt cobbles in matrix of weatherd palagonite & sediment (hyaloclastite); thick worm tubes and coral holdfasts on surface.	
2	Basalt cobbles	1.9	A			1%	tr	1-3	H-VH	weathered basalt cobbles similar to above.	
3, 4, 5	Coral	2.3						tr			
STATION 53	Erratic	.2	C	granitic							


6
CHAIN 100—LEG III
2-28 MAR 1971
50°
45°
35°
25°
20°
15°
10°
NASSAWA
DJIBOUTI
10°
15°
20°
25°
30°
35°
40°
45°


CHAIN 100 LEG 6
17 MAY — 16 JUNE, 1971
INTERNATIONAL DATE LINE
Tokyo
Hong Kong
Singapore
Darwin
Colombo


CHAIN 100 LEG VII
22 JUNE – 13 JULY, 1971
INTERNATIONAL DATE LINE
Tokyo
Hong Kong
Singapore
Darwin
Colombo


CHAIN 100 — LEG VIII
18–31 JULY 1971
Port Vila
Tokyo
Hong Kong
Singapore
Darwin
Colombo
INTERNATIONAL DATE LINE


CHAIN 100 — LEG IX
4–26 AUG 1971
Suva
Port Villa
Tokyo
Hong Kong
Singapore
Darwin
Colombo

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	100	3	0006	0000	8	71 3 5	19 38.4'N	38 36.2'E	9	69.98	0001	1831.	1739.	227G	16	0000	0	
CHN	100	6	0060	0000	8	71 531	4 .2'S	90 46.9'E	9	326.40	0005	4881.	3960.	011K	15	0000	0	
CHN	100	7	0061	0000	8	71 711	12 40.2'S	123 33.4'E	9	359.23	0006	127.	238.	3.9K	2	0000	0	
CHN	100	7	0064	0000	8	71 712	12 39.6'S	123 33.0'E	9	359.23	0009	239.	242.	012K	2	0000	0	
CHN	100	8	0066	0000	8	71 723	10 43.8'S	152 8.4'E	9	356.02	0010	3271.	3215.	1.8K	21	0000	0	
CHN	100	9	0081	0000	8	71 8 9	17 52.4'S	167 20.6'E	9	355.77	0014	4815.	4746.	044K	17	0000	0	
CHN	100	9	0086	0000	8	71 813	14 47.1'S	168 9.2'E	9	355.48	0015	2671.	2291.	045K	21	0000	0	
CHN	100	9	0090	0000	8	71 816	13 17.5'S	166 6.8'E	9	355.36	0016	7094.	6485.	5.9K	21	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

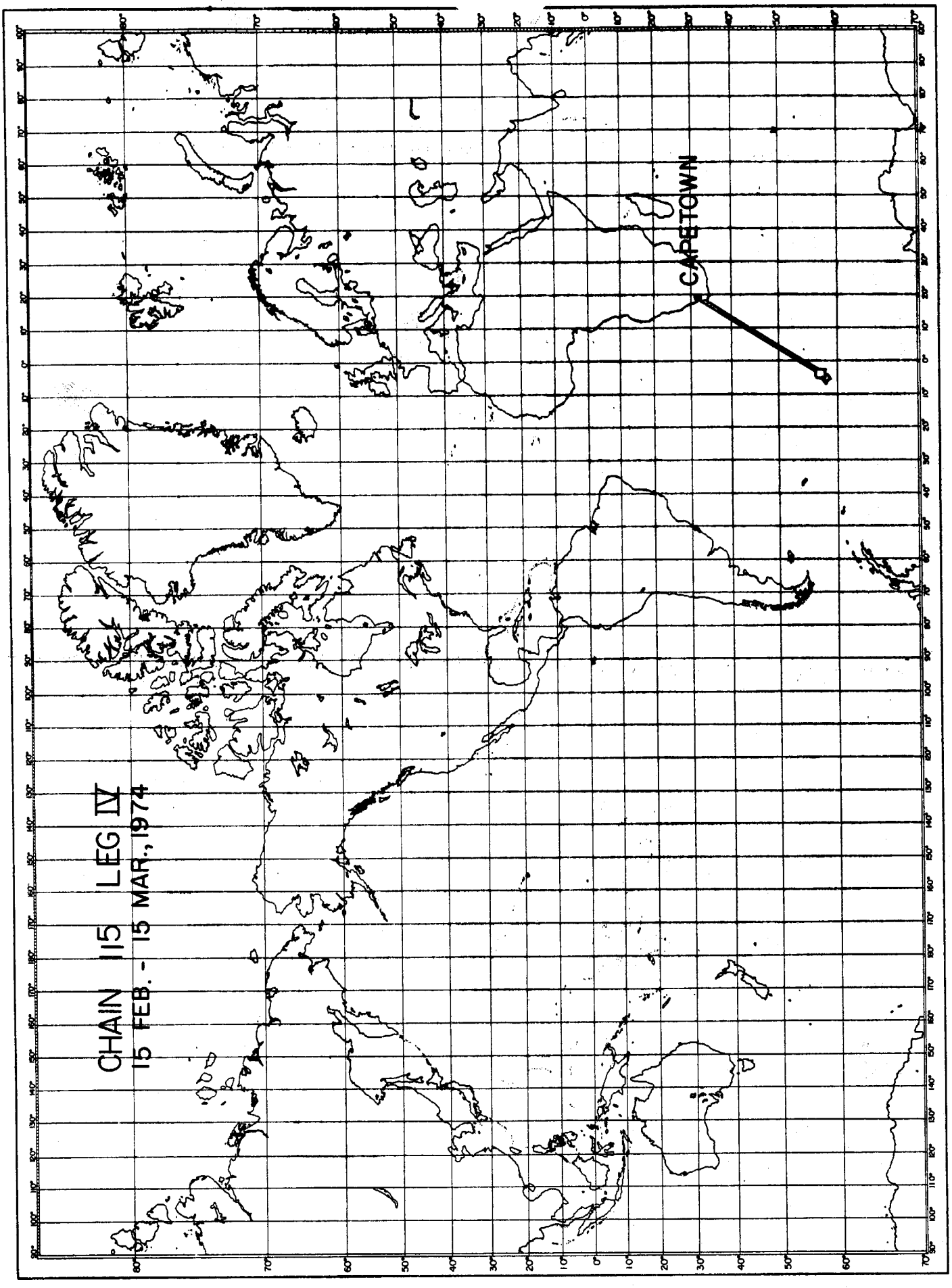
CRUISE CHAIN 100 STATION see below DREDGE _____ DESCRIBED BY FARMER DATE _____

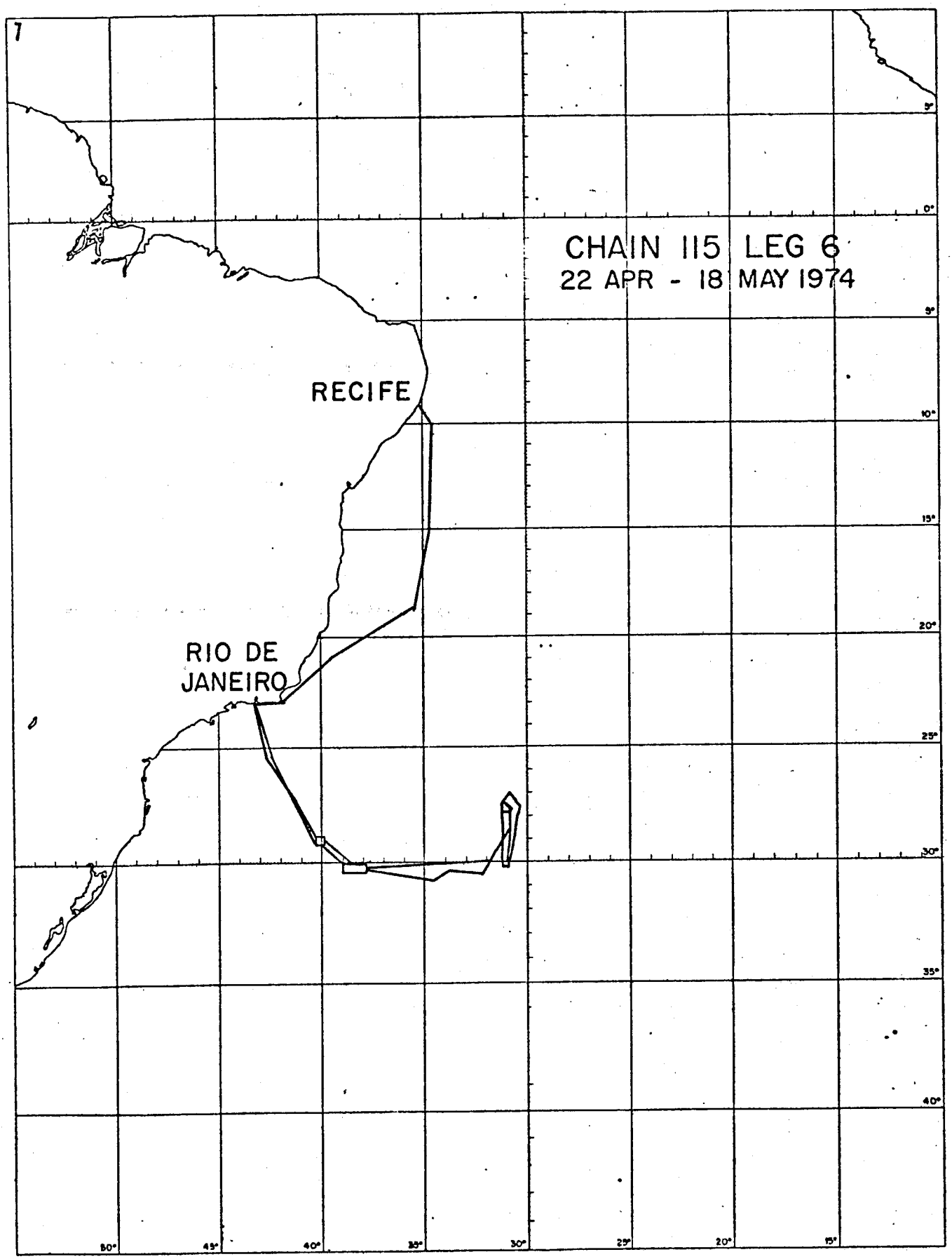
Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 6	Limestone	220g		Algal limestone							
STA 60	Calc ooze	2.8		Light gray brown calc ooze lumps mixed with some very altered basalt pebbles							
	Basalt breccia	6.7	C					tr	H	Some quartz veins present	Many fragments
	Diabase	.2	F	Plag, Px				mm .2	M		
	Basalts	.2	A				C	.2	M		2 pieces
STA 61	Biology	3.8		Urchins, crabs, shells, sponges in jar							
STA 64	Limestone	12		Have indurated chalk interiors, but rough algal limestone exteriors							
STA 66	Calc ooze	1.8		Pale brown, foram rich							

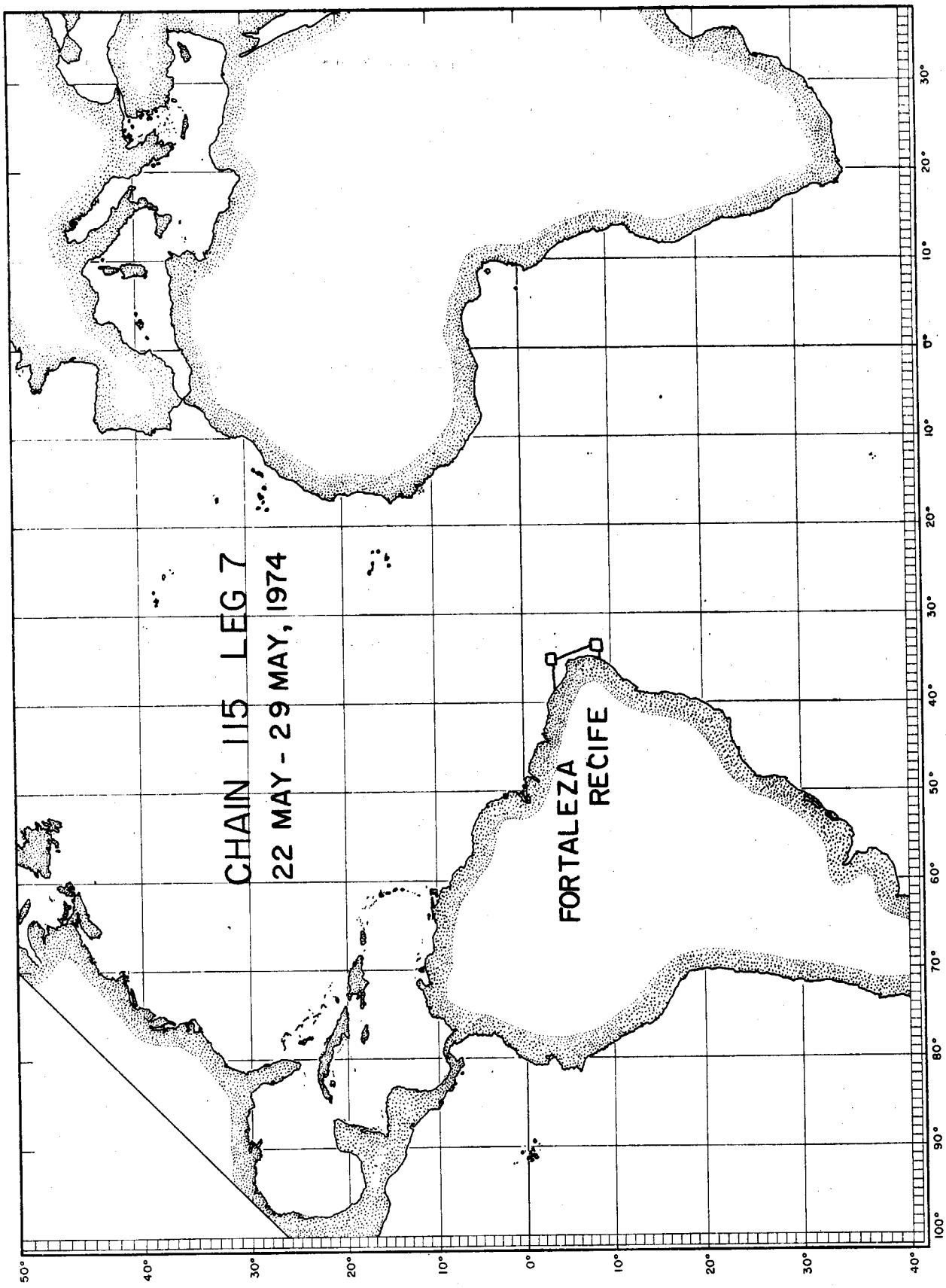
WHOI ROCK SAMPLE DESCRIPTION

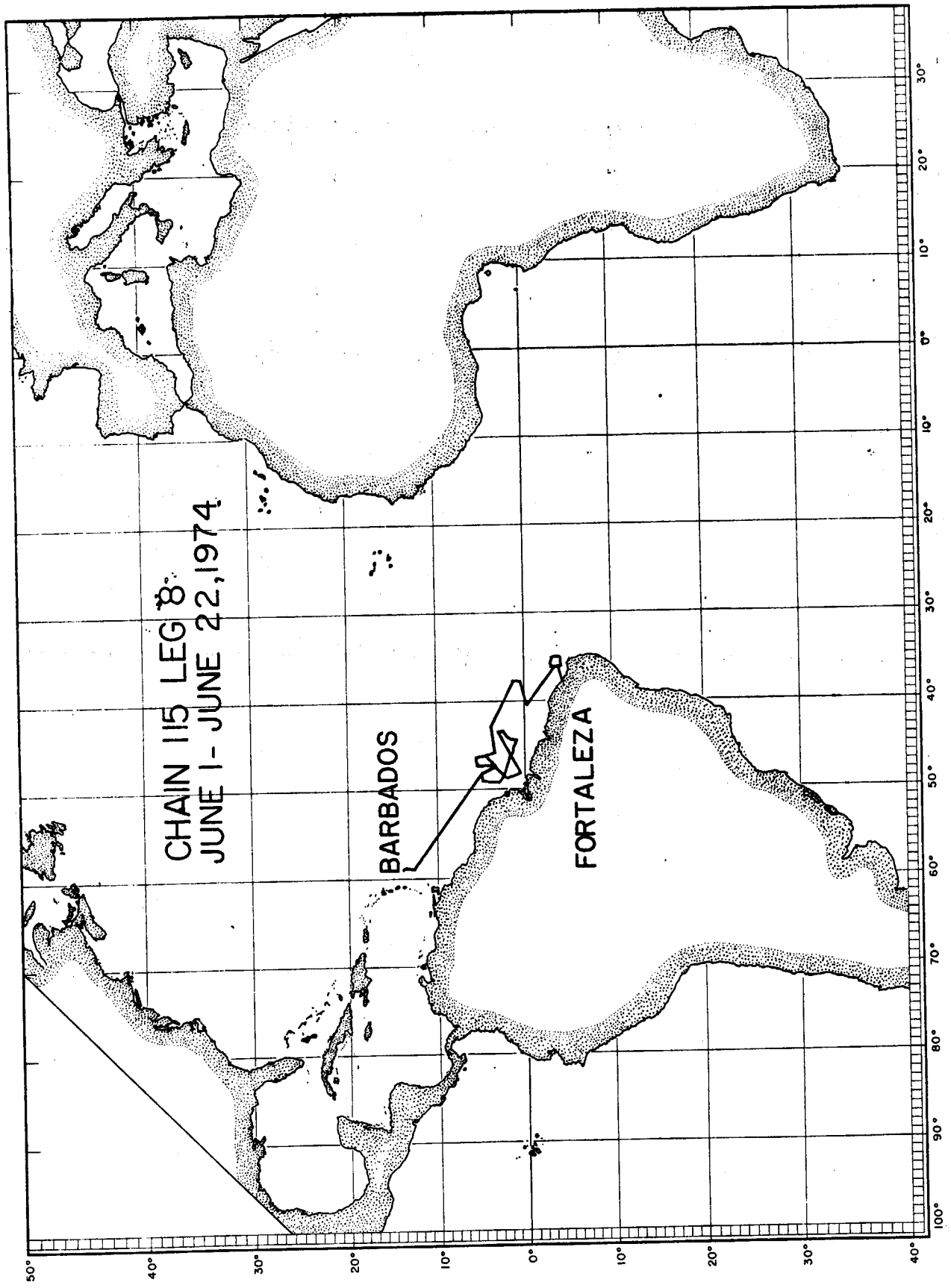
CRUISE CHAIN 100 STATION See below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE Jan. 79

Sample #	Lithology	Wt.	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 81	Siltstones	44		Soft siltstones and sandstones, generally massive character but quite a few have pronounced microlaminations showing faults and cross-bedding. One piece of coarse sandstone. Generally non-calcareous, although some pieces have small % lime.							
STA 86	Siltstones	27		Fairly calcareous with numerous forams visible, these are fairly soft and crumbly							
	Siltstones	18		Gray and olive brown (darker than above sediments), more consolidated and non-calcareous, a few show bedding planes & shearing, but most are massive in character.							
STA 90	Siltstones	5.9		Mostly calcareous, sandy siltstones, soft and crumbly - a few are non-calcareous							


CAPE TOWN
CHAIN 115 LEG IV
15 FEB. - 15 MAR., 1974


7
CHAIN 115 LEG 6
22 APR - 18 MAY 1974
RECIFE
RIO DE
JANEIRO
5°
0°
5°
10°
15°
20°
25°
30°
35°
40°
50°
45°
40°
35°
30°
25°
20°
15°


CHAIN 115 LEG 7
22 MAY - 29 MAY, 1974
FORTALEZA
RECIFE
50°
40°
30°
20°
10°
0°
10°
20°
30°
40°
10°
0°
10°
20°
30°
40°
50°
60°
70°
80°
90°
100°


CHAIN 115 LEG 8
JUNE 1 - JUNE 22, 1974
BARBADOS
FORTALEZA
50°
40°
30°
20°
10°
0°
10°
20°
30°
40°
100°
90°
80°
70°
60°
50°
40°
30°
20°
10°
0°
10°
20°
30°

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	115	4	0037	0000	8	74 225	54 35.9'S	0 58.1'W	9	480.40	0001	2522.	2328.	093K	14	0000	0	
CHN	115	4	0038	0000	8	74 227	55 20.2'S	1 42.6'W	9	480.51	0003	3509.	3419.	9.5K	14	0000	0	
CHN	115	4	0042	0000	8	74 3 4	55 22.5'S	2 1.9'W	9	480.52	0004	2540.	2461.	1.8K	15	0000	0	
CHN	115	4	0044	0000	8	74 3 6	54 40.2'S	0 1.2'W	9	480.40	0005	861.	818.	091K	16	0000	0	
CHN	115	4	0050	0000	8	74 3 8	54 13.7'S	4 3.1'E	9	515.44	0008	1806.	1938.	9.2K	19	0000	0	
CHN	115	6	0146	0000	8	74 511	30 12.8'S	39 21.5'W	1	411.09	0009	4789.	4139.	133K	13	0000	0	
CHN	115	7	0151	0000	8	74 524	8 5.8'S	33 54.5'W	1	303.83	0011	2052.	1774.	103K	4	0000	0	
CHN	115	7	0154	0000	8	74 528	4 43.5'S	35 2.0'W	1	303.45	0014	1085.	905.	5.9K	4	0000	0	
CHN	115	8	0155	0000	7	74 6 3	3 19.0'S	37 34.0'W	1	303.37	0015	285.	344.	030G	4	0000	0	
CHN	115	8	0156	0000	8	74 6 3	3 20.3'S	37 22.8'W	1	303.37	0016	806.	284.	6.6K	4	0000	0	
CHN	115	8	0157	0000	8	74 6 3	3 20.4'S	37 27.7'W	1	303.37	0017	266.	272.	043K	4	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 115 STATION 37 DREDGE 1 DESCRIBED BY BRODA/FARMER DATE 28 Jan. 1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
-3	Basalt	3.2	A	glassy margin	none	2%	-	-	F		columnar joints
-4	Basalt	2	A	" "	"	15%	S	-	F		" "
-5	Basalt	2.4	A	" "	"	15%	S	-	F		" "
-6	Basalt	2	A	" "	"	15%	S	-	F		" "
-7	Basalt	1.4	A	" "	"	15%	S	-	F		" "
-9	Basalt	7.2	A	" "	"	15%	S	-	F		" "
-11	Basalt	.1	A	" "	5% plag. 5% oliv.	3%	-	-	VF		
-8	Basalt	.45	A	" "	5% plag. 5% oliv.	3%	-	-	VF		
+1,2	Basalt	1.0	A	-	-	15%	S	-	F		
	Basalt	73	A	-	-	15%	S	-	F		numbered & Unnumbered many with glassy margins & pillow fragment joints

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 115 STATION 38 DREDGE 3 DESCRIBED BY BRODA/FARMER DATE 16 Feb.1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
-2	Glassy basalt	.2	A		25% Pg.	1%	-	tr	F	slight palagonite rind	
-3	Glassy basalt	1.9	A		" "	1%	-	tr	F	" "	"
-4	Glassy basalt	.2	A		" "	1%	-	tr	F	" "	"
-6, 7	Glassy basalt	.5	A		" "	1%	-	tr	F	" "	"
-8	Basalt	.6	A		" "	4%	-	tr	F	" "	"
-9	Basalt	.5	A		" "	1%	-	tr	F	" "	"
-10	Basalt	.4	A		40% Pg.	1%	-	tr	F	" "	"
-11	Basalt	2.5	A		20% Pg.	2%	-	.2	L	no glass	
-12	Glassy basalt	4.8	A		35% Pg.	2.5%	-	.2	F	slight palagonite	Pillow fragments
-13	Basalt	1.2	A		20% Pg.,2% ol.	2%	-	.2	F		
-14	Glassy basalt	3.4	A		40% Pg.	2%	-	.2	F	slight palagonite	Pahoehoe texture surface
-1	Diabase/basalt	.1	F	plag., px		-	-	-	F		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 115 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE 16 Feb. 1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 42	DREDGE 4D										
	Granitic erratic	2.1K									
STATION 44	DREDGE 5D										
-2	Glassy basalt	.7	A		1% Pg.	10%	-	-	F	slight palagonite	vesicles vary widely in shape and size
-3	Glassy basalt	1.5	A		tr Pg. laths	5%	-	-	F	"	very tiny vesicles
-7	Basalt	.6	A		tr Pg.	30%	-	-	F	"	two major size groups of vesicles
-6	Glassy basalt	.7	A		tr Pg.	20%	-	-	F	"	"
-5	Glassy basalt	3.0	A		tr Pg.	25%	-	-	F	"	"
-8	Basalt	.7	A		tr Pg.	25%	-	-	VF	"	vesicles occur in compact groups
-10	Glassy basalt	.4	A		tr Pg.	20%	-	-	F	"	
-11	Glassy basalt	5.1	A		tr Pg.	20%	-	-	F	"	Pahoehoe, ropey glass rind
-12	Glassy basalt	5.3	A		tr Pg. (laths)	30%	-	-	F	"	glassy lava tube, unique vesicular geometry of rind
-30	Glassy basalt	1.9	A		tr Pg.	10%	-	-	F	"	Pahoehoe glassy margin
-31	Glassy basalt	1.5	A		tr Pg.	20%	-	-	F	"	Pillow fragment
-32	Glassy basalt	.8	A		tr Pg.	25%	-	-	F	"	-
33	Glassy basalt	.8	A		tr Pg.	25%	-	-	F	"	-
numbered & unnumbered	Basalt	68	A		tr Pg.	15%	-	-	F	"	-

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 115 STATION 50 DREDGE 8 DESCRIBED BY BRODA/FARMER DATE 16 Feb. 1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
-2	Glassy basalt	.2	A		40% Pg. (coarse)	tr	-	tr	F		
-3	Glass	.2	G		45% Pg. (coarse)	tr	-	-	F	very slight palagonite	Coral holdfast
-4	Glass	.1	G		60% Pg. (coarse) 1% ol.	2%	-	tr	F	"	
-5	Glassy basalt	.4	A		40% Pg. (coarse) 1% ol.	2%	-	tr	F	"	fragment of gas dome
-6	Glassy basalt	.4	A		40% Pg. (coarse)	2%	-	tr	F	"	"
-7	Glassy basalt	.4	A		" "	2%	-	tr	F	"	"
-8	Glassy basalt	.4	A		35% Pg. (coarse)	2%	-	tr	F	"	"
-9	Glassy basalt	.4	A		40% Pg. (coarse)	3%	-	tr	F	"	"
-10	Glassy basalt	.7	A		35% coarse	3%	-	tr	F	"	drippings beneath
-11	Glassy basalt	1.8	A		40% Pg.	2%	-	tr	F	"	fragment of dome
-12	Glass	5	G		70% Pg. 2% ol. both very coarse	5%	-	tr	F	"	a real sight to see
	Biology	2gr									

WHOI ROCK SAMPLE DESCRIPTION

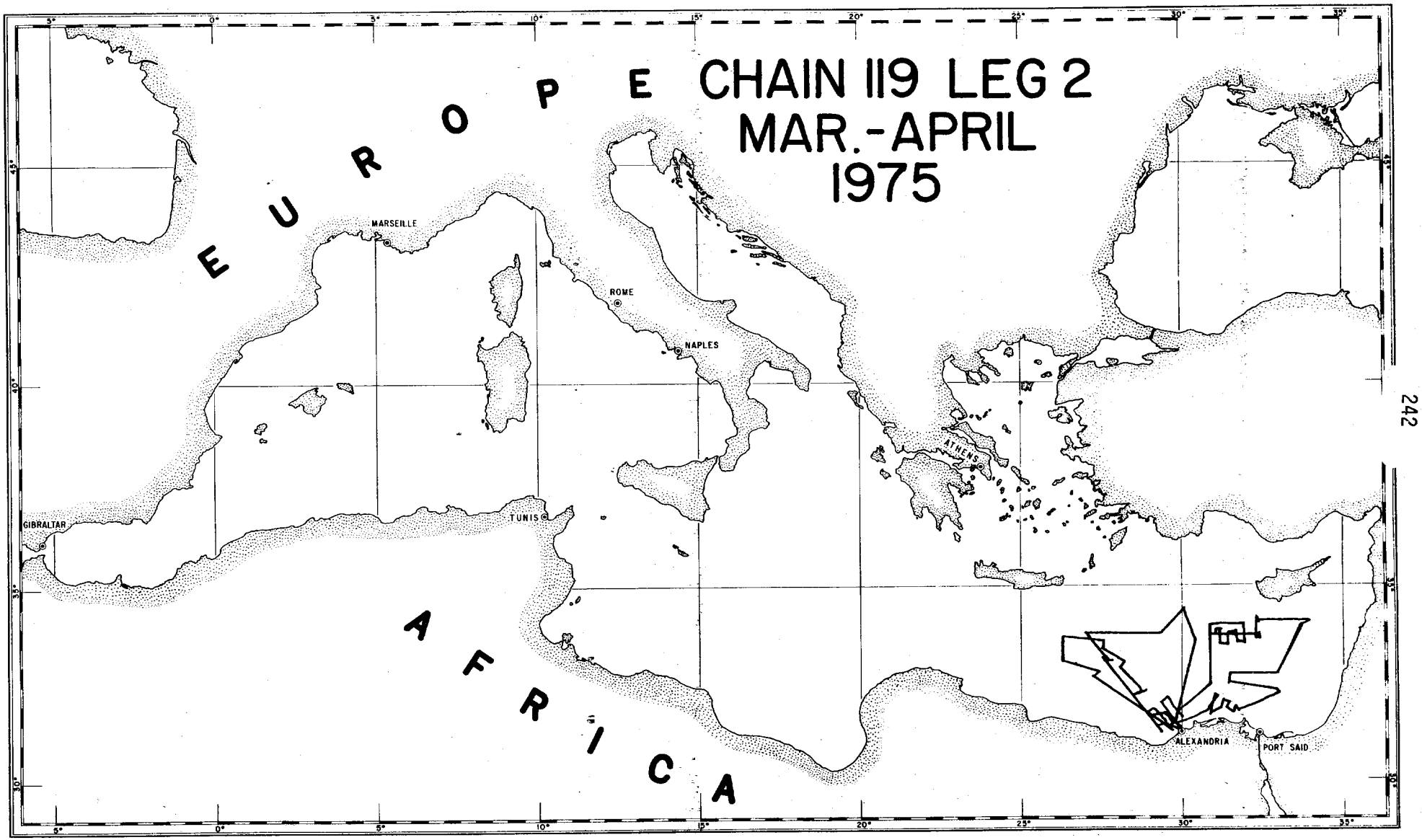
CRUISE CHAIN 115 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE Feb. 1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 146	DREDGE 9										
	Sponges	1.8									
	Lutite	47		non-calcareous, semi-consolidated, lutite lumps with Mn crust and lumps of early							
				stages of Mn pavement							
	Manganese	175		large fragments of Mn pavement							
STATION 151	DREDGE 11										
	Basalt	0.5	A		15% plag.	25%	-	tr	H		vesicles up to 5mm
	Lutite	.3		slightly calc. clay (i.e. scattered forams in unfoss. lutite matrix).							
	Mn	49		small to large Mn nodules and pavements.							
	Mn Nodule	35		very large Mn nodule, perhaps with boulder as nucleus.							
	Mn nodule	18		large Mn nodule.							
STATION 154	DREDGE 14										
	Limestone	4.4K		indurated fine sand & silt sized forams							
	Limestone conglomerate	1.5K		sand size fragments of coral and calc. debris with some terrigenous sand, recrystallized and much denser than indurated foram sand above.							
STATION 155	DREDGE 15										
	Biology	30G		crinoids (?)							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 115 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE Feb. 1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 156											
1-5	Dolomitic limestone	1.3		crystalline orange-colored limestone				.5		slabs appear to have Mn on one exterior surface and phosphorite on the other; also coral holdfasts.	
6	"	.8		"						highly burrowed, many coral holdfasts & sponges, just phosphorite coating (?)	
8	"	1.8		"	phosphorite on both sides; coral holdfasts; casting of coral heads remarkably preserved in limestone mass.						
9, 10	"	.6		"	phosphorite and Mn on opposite sides of fragments						
7	"	2.0			much less dense conglomerate of coral and algal debris with dolomitic cement; phosphorite on one surface and Mn on flip side.						
STATION 157 unnumbered	Limestone	43		small to massive chunks of limestone composed of algal and molluscan debris, crinoids starfish and sponges							


CHAIN 119 LEG 2
MAR.-APRIL
1975
EUROPE
AFRICA
MARSEILLE
ROME
NAPLES
ATHENS
TUNIS
GIBRALTAR
ALEXANDRIA
PORT SAID
5°
0°
5°
10°
15°
20°
25°
30°
35°
45°
40°
35°
30°

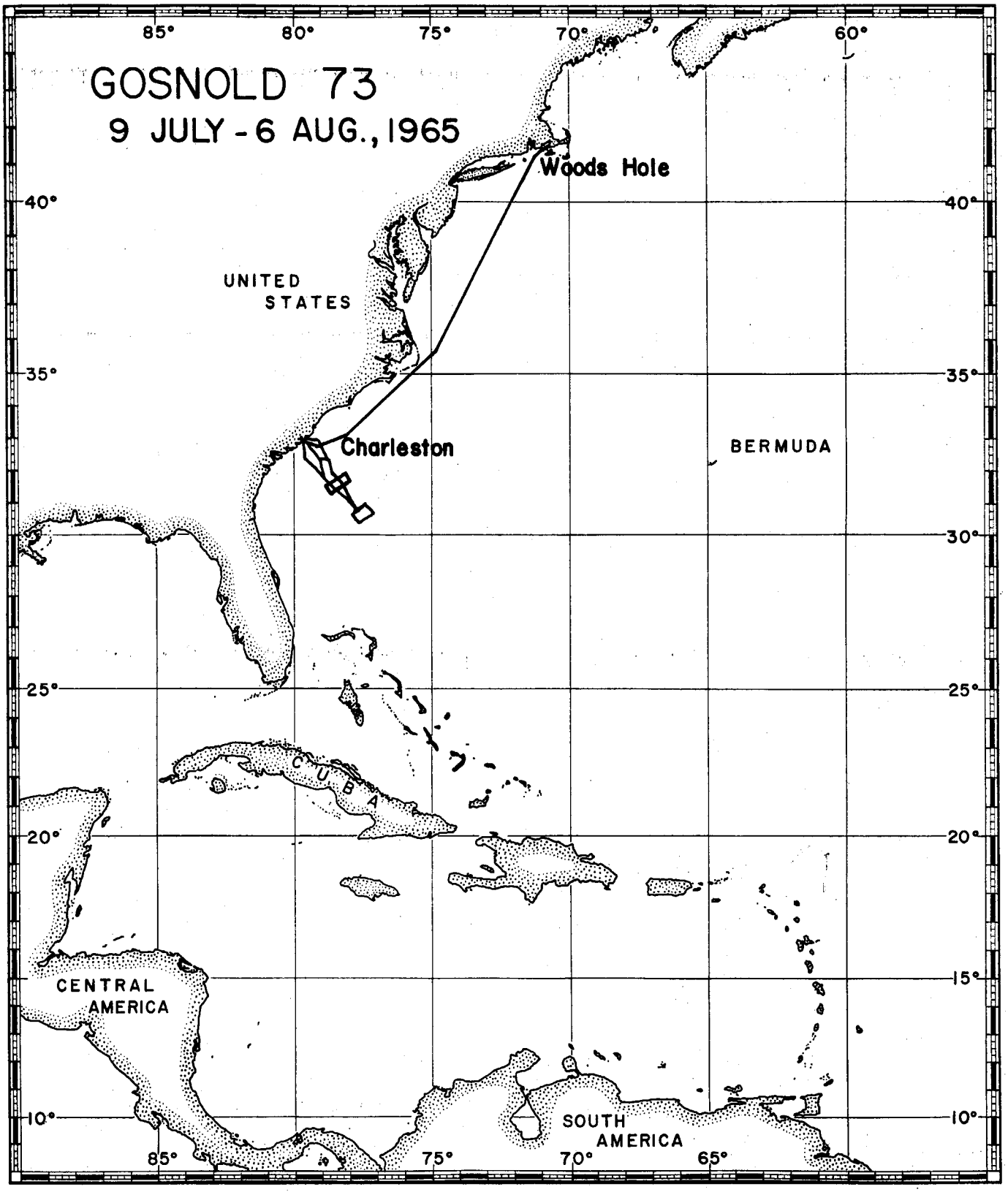
********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
CHN	119	2	0044	0000	8	75 328	31 41.2'N	30 30.3'E	1	141.10	0001	29.	33.	570G	24	0000	0	
CHN	119	2	0060	0000	8	75 329	31 36.9'N	30 7.0'E	3	141.10	0002	219.	63.	254G	25	0000	0	
CHN	119	2	0092	0000	8	75 4 2	31 40.7'N	30 41.3'E	3	141.10	0003	17.	17.	425G	24	0000	0	
CHN	119	2	0105	0000	8	75 4 3	31 38.2'N	30 57.9'E	3	141.10	0004	6.	9.	176G	24	0000	0	
CHN	119	2	0124	0000	8	75 4 5	33 46.1'N	32 42.1'E	9	141.32	0005	917.	917.	1.5K	12	0000	0	
CHN	119	2	0181	0000	8	75 410	32 1.8'N	31 24.0'E	9	141.21	0008	97.	105.	025K	24	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE CHAIN 119 STATION see below DREDGE _____ DESCRIBED BY FARMER DATE Feb. 1979

Sample #	Lithology	Wt.	G.S.	Minerology	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 44	Lutite	570g		slightly calcareous dark olive-gray, silty lutite							
STATION 60	Coral	40g		gray muddy coral							
	Mudstone	210g		shaley							
STATION 92	Mudstone	200g		brownish mudstone pellets							
	Siltstone	225g		micaceous, with worm tube encrustations							
STATION 105	Siltstone	170g		2 pieces brown, planar, micaceous							
STATION 124	Limestone	1.5K		muddy algal limestone							
STATION 181	Coral	24K									
	Sand	310g		somewhat calcareous coarse sand							
	Lutite	190g		slightly calcareous dark olive-gray, silty lutite							


GOSNOLD 73
9 JULY - 6 AUG., 1965
Woods Hole
Charleston
UNITED STATES
BERMUDA
CUBA
CENTRAL AMERICA
SOUTH AMERICA
85°
80°
75°
70°
60°
65°
40°
35°
30°
25°
20°
15°
10°

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

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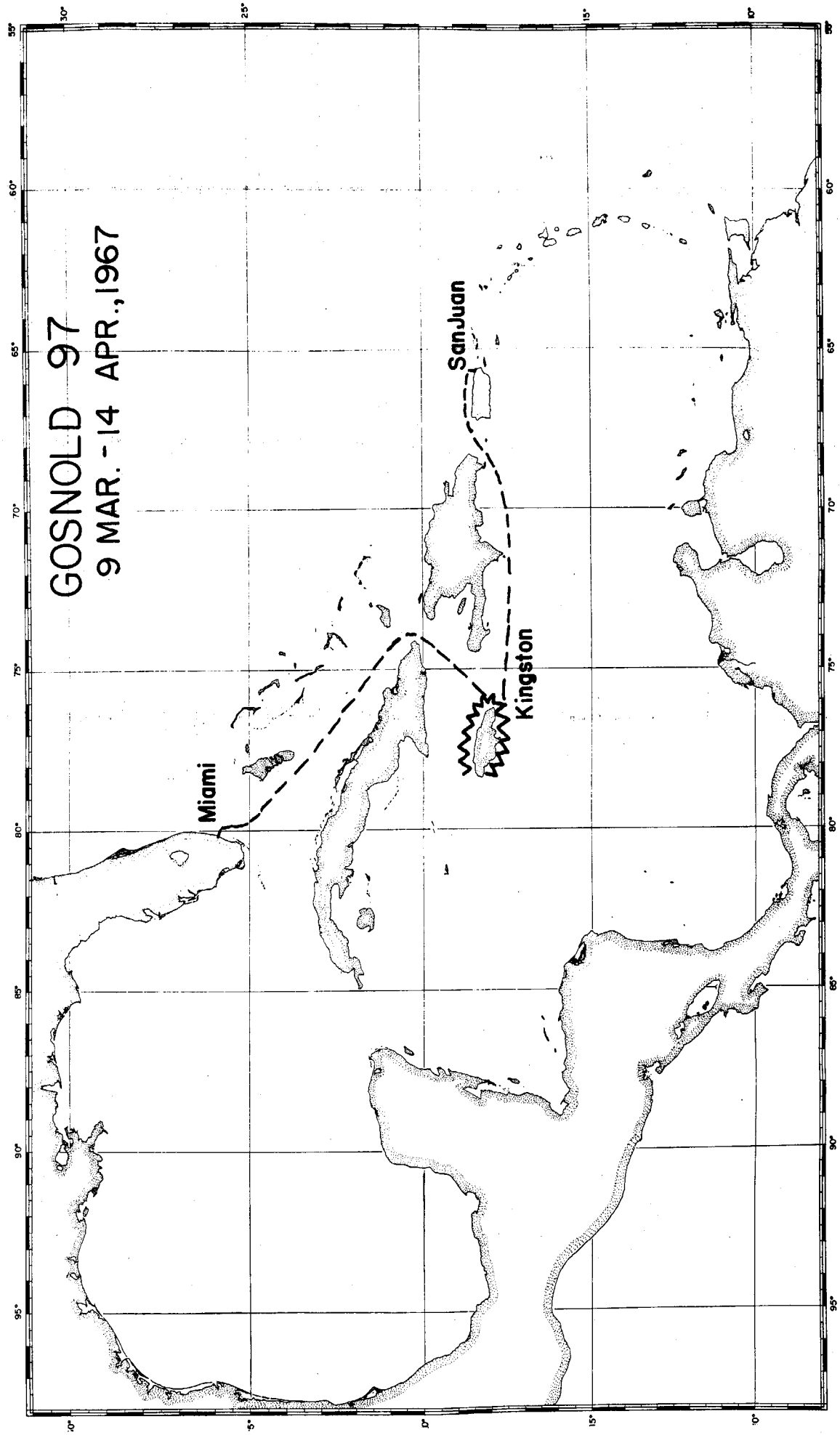
GOS	73	1	0001	0000	7	65 713	33 10.0'N	78 20.0'W	5	116.38	0001	28.	0.	1.5K	7	0000	0	
GOS	73	1	0002	0000	7	65 718	30 13.0'N	78 37.6'W	5	116.08	0002	809.	0.	910G	7	0000	0	
GOS	73	1	0004	0000	7	65 718	30 15.2'N	78 39.5'W	5	116.08	0004	809.	0.	100G	7	0000	0	
GOS	73	1	0005	0000	7	65 718	30 14.8'N	78 39.6'W	5	116.08	0005	809.	0.	1.7K	7	0000	0	
GOS	73	1	0006	0000	7	65 718	30 15.8'N	78 41.7'W	5	116.08	0006	790.	0.	1.6K	7	0000	0	
GOS	73	1	0007	0000	7	65 719	30 41.5'N	78 52.6'W	5	116.08	0007	0.	0.	2.7K	7	0000	0	
GOS	73	1	0008	0000	7	65 719	30 38.7'N	78 51.5'W	5	116.08	0008	847.	0.	002K	7	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE GOSNOLD 73 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	STATION No. 1										
	Detrital sand	1.5		Poorly sorted light gray detrital sand with a few shells and fragments.							
	STATION No. 2										
	Calc. sand	1.0		Loose foram sand with pteropods.							
	STATION No. 4										
	Calc. sand	0.1		Foram, pteropod, shell and coral fragment sand.							
	STATION No. 5										
	Calc. sand	1.7		Foram/pteropod sand.							
	STATION No. 6										
	Calc. sand	1.6		Foram sand with pteropods and shell fragments.							
	STATION No. 7										
	Limestone	1.0		Manganese and phosphorite coated crystalline limestone fragments.							
	Calc. sand	1.6		Foram/pteropod sand.							
	STATION No. 8										
	Calc. sand	2.0		Foram/pteropod sand.							


GOSNOLD 97
9 MAR. - 14 APR., 1967
Sanjuan
Kingston
Miami

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
GDS	97	0	0006	0000	7	67 315	17 47.1'N	76 17.0'W	1	44.76	0006	738.	0.	450G	3	0000	0	
GDS	97	0	0016	0000	7	67 316	17 51.6'N	77 4.5'W	1	44.77	0016	10.	0.	450G	1	0000	0	
GDS	97	0	0018	0000	7	67 316	17 46.0'N	77 4.3'W	1	44.77	0018	20.	0.	500G	1	0000	0	
GDS	97	0	0020	0000	7	67 316	17 36.8'N	77 4.0'W	1	44.77	0020	25.	0.	567G	1	0000	0	
GDS	97	0	0021	0000	7	67 316	17 40.3'N	77 7.9'W	1	44.77	0021	0.	0.	254G	1	0000	0	
GDS	97	0	0024	0000	7	67 317	17 38.1'N	76 50.1'W	1	44.77	0024	0.	0.	925G	1	0000	0	
GDS	97	0	0026	0000	7	67 317	17 43.0'N	76 54.0'W	1	44.76	0026	0.	0.	450G	1	0000	0	
GDS	97	0	0030	0000	7	67 317	18 4.1'N	76 15.0'W	1	44.86	0030	698.	0.	908G	1	0000	0	
GDS	97	0	0033	0000	7	67 317	18 1.7'N	76 16.1'W	1	44.86	0033	322.	0.	450G	3	0000	0	
GDS	97	0	0038	0000	7	67 318	17 55.0'N	77 5.2'W	1	44.76	0038	460.	0.	790G	3	0000	0	
GDS	97	0	0042	0000	7	67 320	18 .5'N	77 57.1'W	1	44.87	0042	18.	0.	340G	1	0000	0	
GDS	97	0	0043	0000	7	67 321	18 .6'N	77 58.0'W	1	44.87	0043	42.	0.	001K	1	0000	0	
GDS	97	0	0044	0000	7	67 321	18 .5'N	77 59.1'W	1	44.87	0044	597.	0.	675G	3	0000	0	
GDS	97	0	0047	0000	7	67 321	17 55.5'N	77 52.4'W	1	44.77	0047	0.	0.	001K	3	0000	0	BIO DREDGE
GDS	97	0	0048	0000	7	67 321	17 52.5'N	77 50.0'W	1	44.77	0048	0.	0.	1.6K	3	0000	0	BIO DREDGE
GDS	97	0	0049	0000	7	67 321	17 52.1'N	77 48.1'W	1	44.77	0049	0.	0.	1.8K	3	0000	0	BIO DREDGE
GDS	97	0	0050	0000	7	67 321	17 49.8'N	77 45.0'W	1	44.77	0050	0.	0.	900G	3	0000	0	BIO DREDGE
GDS	97	0	0066	0000	7	67 322	17 50.0'N	77 39.8'W	1	44.77	0066	0.	0.	900G	3	0000	0	BIO DREDGE

WHOI ROCK SAMPLE DESCRIPTION

CRUISE GOSNOLD 97 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	STATION No. 6										
	Calc. ooze	.5		Consolidated calc. ooze with scattered foram and few small shell fragments.							
	STATION No. 16										
	Calc. ooze	.5		Soft gray calc. ooze.							
	STATION No. 18										
	Calc. ooze	.5		Gray consolidated calc. ooze.							
	STATION No. 20										
	Calc. sand	.5		Fine coral and shell hash sand with sea weed and larger shell fragments.							
	STATION No. 21										
	Coral	.3		Coarse coral rubble with numerous weathered shell fragments.							
	STATION No. 24										
	Calc. ooze	.5		Brown calc. ooze with numerous pteropods.							
	STATION No. 26										
	Calc. ooze	.5		Brown calc. ooze with pteropods.							
	STATION No. 30										
	Calc. ooze	1.0		Blue gray and brown calc. ooze with pteropods.							

WHOI ROCK SAMPLE DESCRIPTION

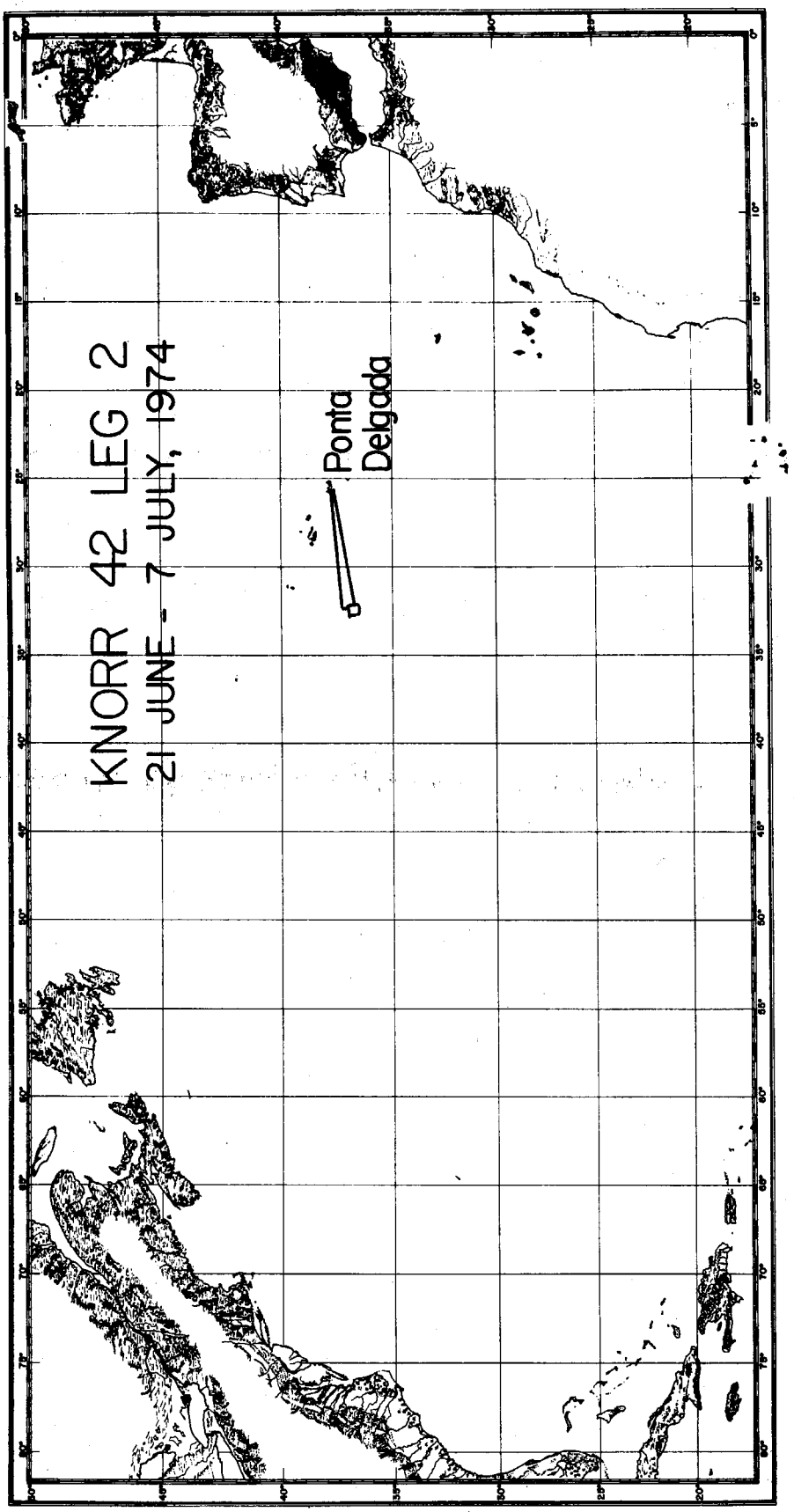
CRUISE GOSNOLD 97 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	STATION No. 33										
	Calc. ooze	.5		Brown calc. ooze with pteropods and shell pragments.							
	STATION No. 38										
	Calc. sand	.8		Coarse sand, coral and shell hash with large fine fraction of forams.							
	STATION No. 42										
	Calc. ooze	.3		Light gray and brown calc. ooze.							
	STATION No. 43										
	Calc. sand	1.0		Fine carbonate sand composed of shell fragments, pteropods and crushed forams.							
	STATION No. 44										
	Calc. ooze	.6		Gray-brown calc. ooze.							
	STATION No. 47										
	Calc. clay	1.0		Gray, silty, highly calc. clay.							
	STATION No. 48										
	Calc. clay	1.5		Gray slick calc. clay							
	STATION No. 49			-							
	Calc. clay	1.8		Gray calc. clay							
	STATION No. 50										
	Calc. clay	1.0		Gray calc. clay.							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE GOSNOLD 97 STATION see below DREDGE _____ DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	STATION No. 66										
	Calc. clay	1.0		Gray calc. clay							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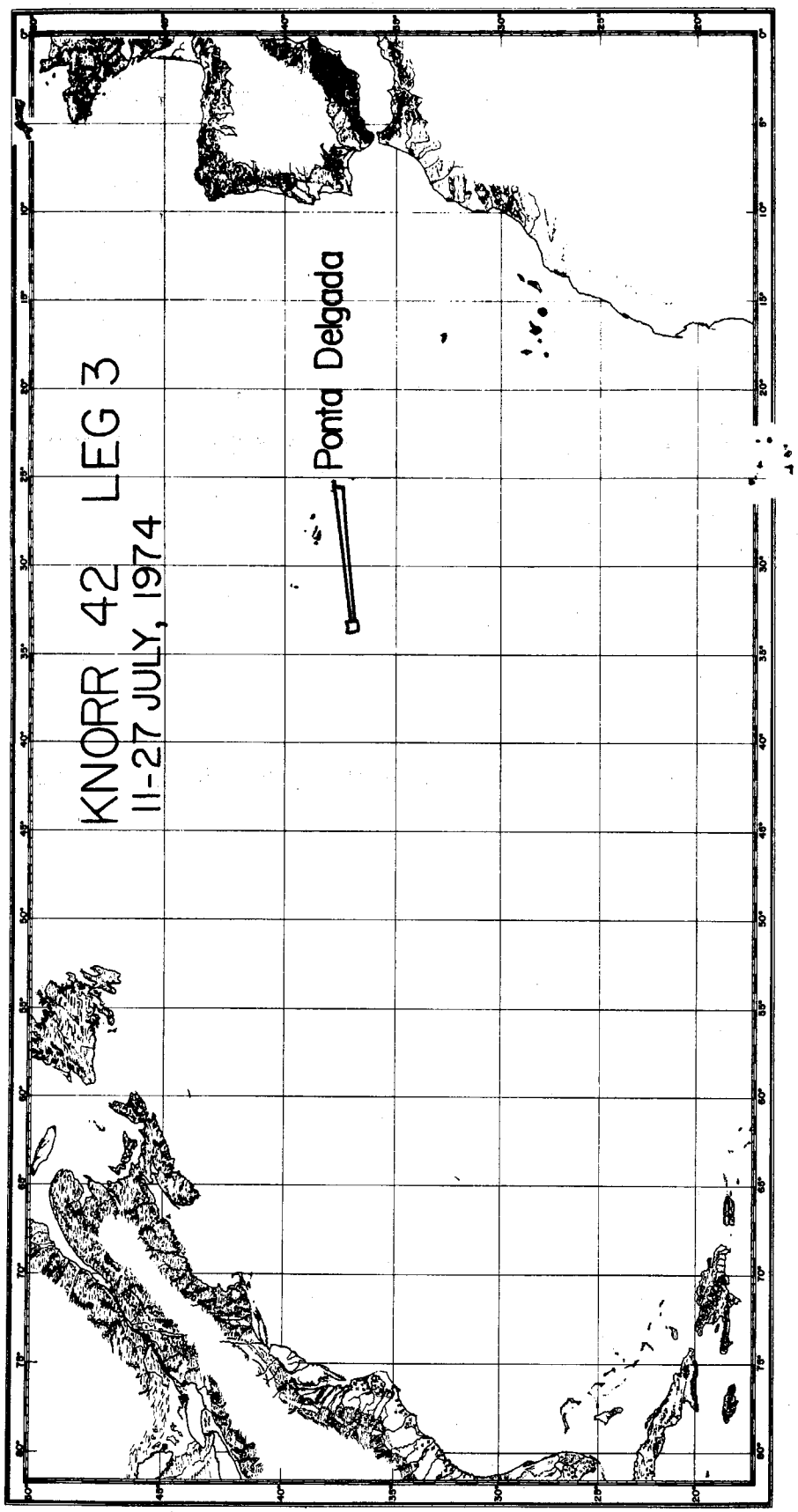
21 JUNE - 7 JULY, 1974
Ponta
Delgada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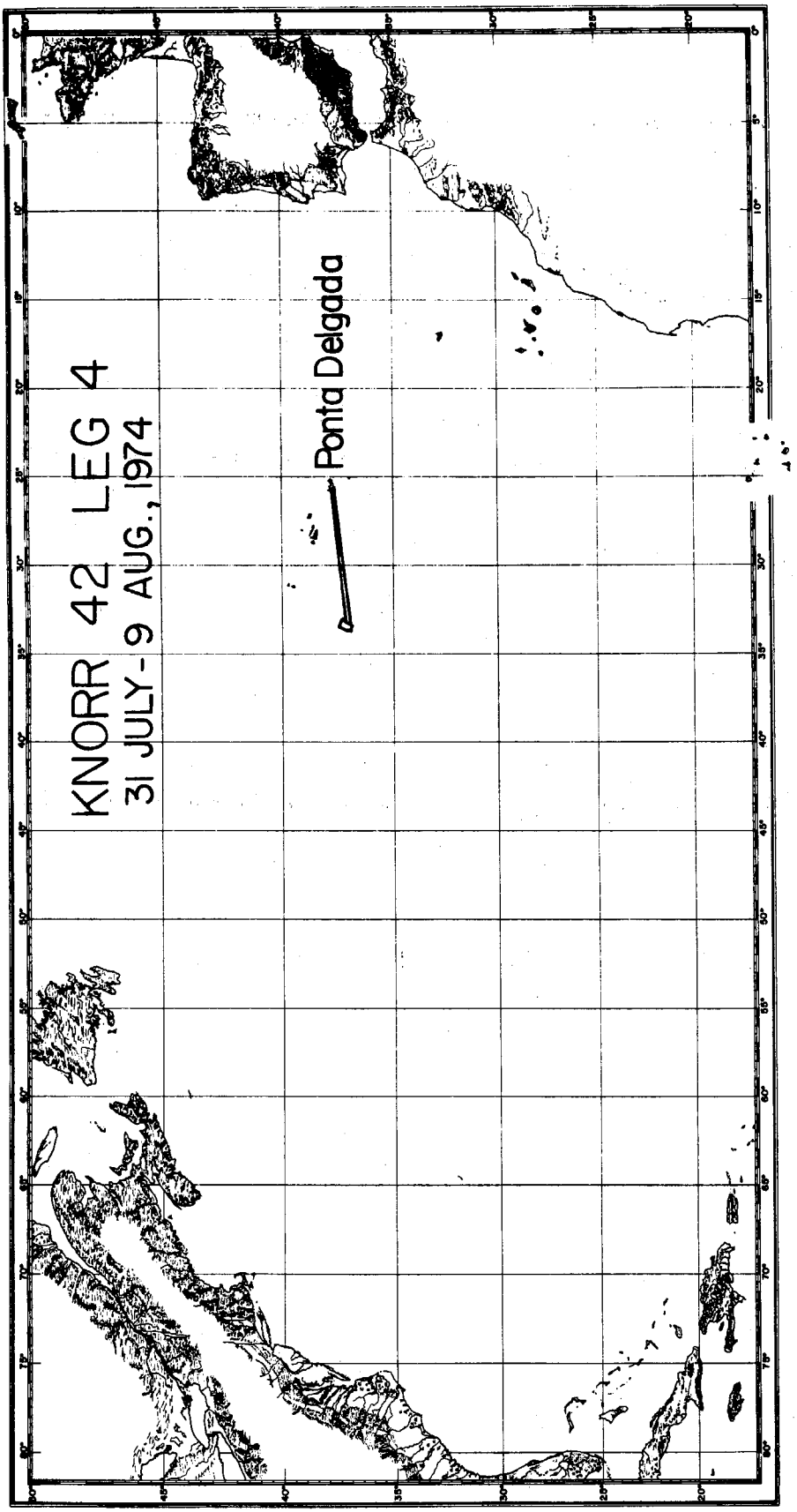
11-27 JULY, 1974
Ponta Delgada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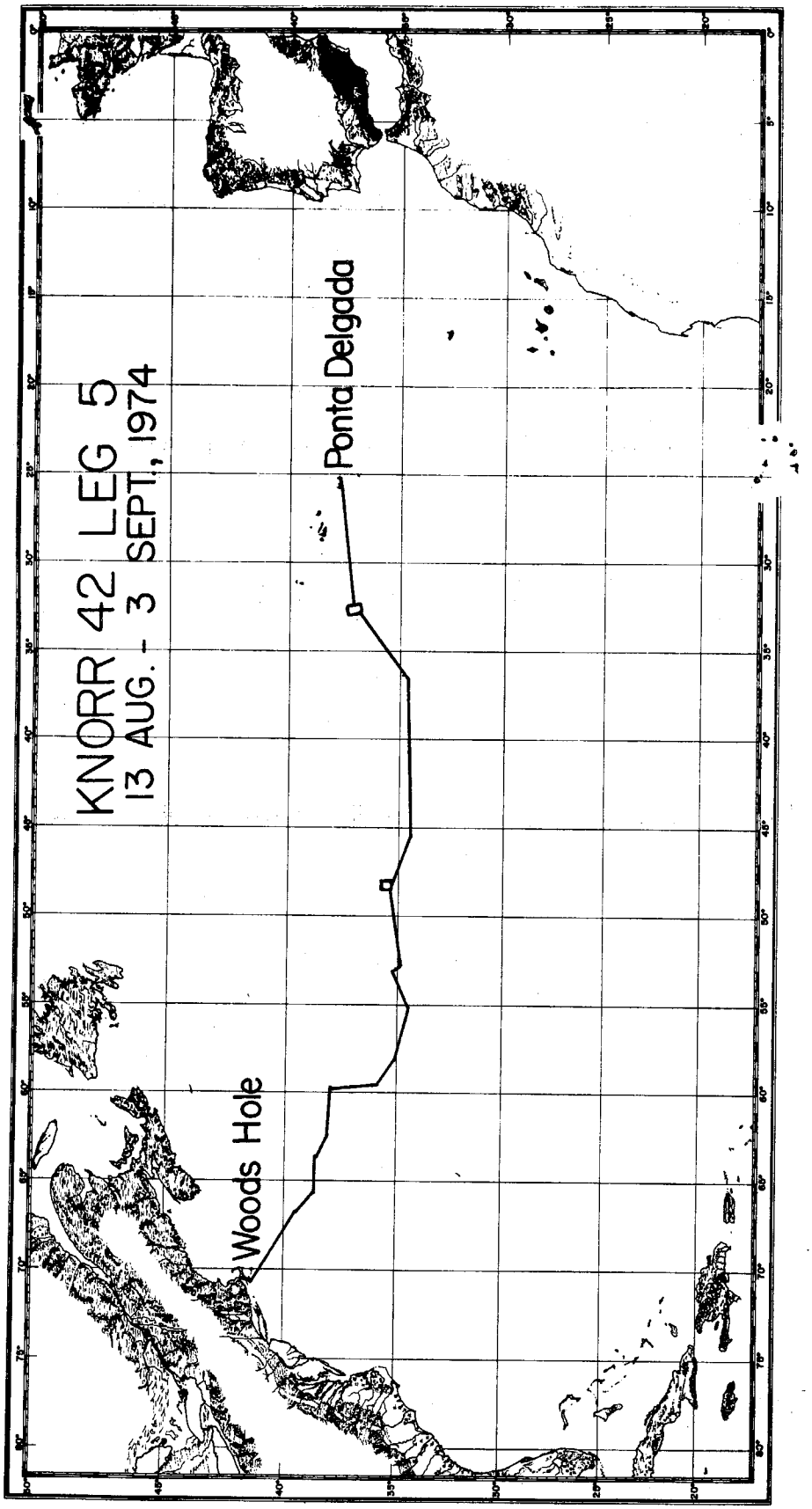
31 JULY-9 AUG., 1974
Ponta Delgada


KNORR 42 LEG 5
13 AUG. - 3 SEPT., 1974
Ponta Delgada
Woods Hole

********** STATION DATA RETRIEVAL ********** PAGE 1
********** DATE: 08:52 SEP 21,'81 ********** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
KNR	42	2	0025	0000	8	74 629	36 56.7'N	33 9.1'W	9	112.63	0003	2993.	2963.	1.6K	19	0000	0	
KNR	42	2	0028	0000	8	74 630	36 54.9'N	33 9.8'W	9	112.63	0004	2889.	2608.	041K	19	0000	0	
KNR	42	2	0033	0000	8	74 7 2	36 57.0'N	33 7.9'W	9	112.63	0005	2908.	2533.	007K	19	0000	0	
KNR	42	2	0035	0000	8	74 7 3	36 56.4'N	33 8.1'W	9	112.63	0006	3041.	2685.	3.5K	19	0000	0	
KNR	42	3	0051	0000	8	74 715	36 36.1'N	33 24.8'W	9	112.63	0008	2599.	2174.	065K	19	0000	0	
KNR	42	3	0068	0000	8	74 717	36 50.8'N	33 23.3'W	9	112.63	0009	1564.	1465.	015K	19	0000	0	
KNR	42	3	0077	0000	8	74 718	36 36.9'N	33 27.6'W	9	112.63	0011	2137.	1763.	169K	19	0000	0	
KNR	42	3	0086	0000	8	74 719	36 38.4'N	33 19.5'W	9	112.63	0012	2901.	2740.	178K	16	0000	0	
KNR	42	3	0102	0000	8	74 722	36 50.8'N	33 19.7'W	9	112.63	0016	1603.	0.	005K	14	0000	0	
KNR	42	3	0108	0000	8	74 723	36 50.6'N	33 21.4'W	9	112.63	0017	1763.	1762.	014K	14	0000	0	
KNR	42	3	0110	0000	8	74 724	36 53.2'N	33 32.1'W	9	112.63	0018	1727.	1347.	2.4K	14	0000	0	
KNR	42	3	0112	0000	8	74 724	36 52.8'N	33 31.7'W	9	112.63	0019	1623.	1732.	0.5K	14	0000	0	
KNR	42	3	0117	0000	8	74 725	36 47.9'N	33 13.7'W	9	112.63	0020	1679.	1648.	1.8K	14	0000	0	
KNR	42	4	0121	0000	8	74 8 3	36 37.5'N	33 28.1'W	9	112.63	0021	1838.	1801.	131K	19	0000	0	
KNR	42	4	0122	0000	8	74 8 3	36 37.3'N	33 28.0'W	9	112.63	0022	1932.	1857.	064K	19	0000	0	
KNR	42	4	0129	0000	8	74 8 3	36 36.4'N	33 28.5'W	9	112.63	0024	2118.	2025.	075K	19	0000	0	
KNR	42	4	0130	0000	8	74 8 4	36 34.9'N	33 27.2'W	9	112.63	0025	2104.	2102.	073K	19	0000	0	
KNR	42	4	0131	0000	8	74 8 4	36 36.4'N	33 29.3'W	9	112.63	0026	2062.	2034.	019K	19	0000	0	
KNR	42	4	0137	0000	8	74 8 5	36 50.9'N	33 32.5'W	9	112.63	0027	1353.	1293.	069K	14	0000	0	
KNR	42	4	0145	0000	8	74 8 6	36 33.4'N	33 28.2'W	9	112.63	0029	2141.	2161.	075K	19	0000	0	
KNR	42	4	0146	0000	8	74 8 6	36 31.9'N	33 29.4'W	9	112.63	0030	2108.	1875.	172K	19	0000	0	
KNR	42	5	0156	0000	8	74 816	36 50.8'N	33 32.2'W	9	112.63	0031	1587.	1279.	012K	14	0000	0	
KNR	42	5	0161	0000	8	74 824	34 48.6'N	57 13.4'W	9	114.47	0033	3310.	3084.	007K	12	0000	0	
KNR	42	5	0162	0000	8	74 824	34 53.3'N	57 11.2'W	9	114.47	0034	2706.	2436.	005K	12	0000	0	
KNR	42	5	0166	0000	8	74 825	35 36.3'N	58 41.4'W	6	114.58	0036	4227.	3805.	5.2K	12	0000	0	
KNR	42	5	0168	0000	8	74 826	36 31.6'N	59 25.7'W	9	114.69	0037	4025.	3796.	1.2K	12	0000	0	
KNR	42	5	0171	0000	8	74 827	37 30.6'N	59 52.2'W	6	114.79	0039	1523.	1260.	143K	12	0000	0	
KNR	42	5	0174	0000	8	74 828	38 11.3'N	60 56.6'W	6	115.80	0040	3777.	3653.	250G	12	0000	0	
KNR	42	5	0177	0000	8	74 830	39 29.6'N	65 24.1'W	6	115.95	0041	2798.	1887.	100G	12	0000	0	
KNR	42	5	0178	0000	8	74 830	39 27.0'N	65 27.3'W	6	115.95	0042	2240.	2531.	012K	12	0000	0	
KNR	42	5	0180	0000	8	74 831	39 50.2'N	66 12.6'W	6	115.96	0043	2354.	1885.	021K	12	0000	0	
KNR	42	5	0181	0000	8	74 831	39 51.0'N	66 52.8'W	6	115.96	0044	2825.	1885.	002K	12	0000	0	
KNR	42	5	0182	0000	8	74 9 1	39 23.6'N	67 14.0'W	6	115.97	0045	3040.	3095.	100G	12	0000	0	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE 3/28/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	STATION 25 DREDGE	kg	3					mm			
1	Basalt	1.5	A		3% Plag, tr Ol.	5%		.2	L	Small bud of palagonite rind	
	STATION 28 DREDGE		4								
1	Basalt	11.5	A		5-7% Pg tr Ol.	5-7%		.3	L		Unsplit - calc. palagonite breccia covers surface
2	Pillow basalt	6	A		2% Pg (fine)	2-3%		<.1	L	Nice palagonite	crust glassy crust
3	" "	3	A		4-5%Pg, tr Ol.	10%	tr	.2	L	tr palagonite	$CaCO_3$ breccia on surface, glassy crust
4	" "	2	A		" "	"		<.1	F	Palagonite	Glassy crust
5,6	" "	2.7	A		" "	"		"	F	"	" "
9,20,37,44	" "	2	A		" "	3-5%		"	F		" "
13,26,27,30	Basalt	1	A		3-6% Pg, tr Ol. Px ?	3-8%			F		
14,22,25,28	Basalt	2	A		2-4% Pg, tr Ol.	4-7%		.1-.2	L		
47 18,29,32,38	Basalt	1	A		30-40% Pg (med) 1% Ol Px?	5-9%			L		
12,17,21,39	Basalt	1.4	A		Tr Pg	0-2%			L		
15,28	Basalt	.5	A-F		Tr Pg	tr	tr?		L		
8	Basalt	1	A		3-5% Pg, tr Ol.	7%		.1	M		
23	Basalt	.3	A		3% Pg, 1% Ol, tr Px	2%	tr		L	Spectacular creeping	hematite staining from rind inward

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION see below DREDGE _____ DESCRIBED BY FARMER/BRODA DATE 3/28/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	STATION 28 DREDGE		4	(continued)							
34	Basalt	kg .2	A		12-15% Pg 1-2% Ol	3%	tr		L	Spectacular hematite staining creeping from rind inward	
10,11,33	Basalt	1.5	A		5% Pg, tr Ol	5%			L		
31,35	Basalt	.5	A		3% Pg	10-12%			F		
	Basalt	3.5	A		"	3%			L		
43	Limestone	.2	A								Calc ooze
45,46,48	Basalt	.75	A		1-3% Pg	3%			F		Basalt cobbles in palagonite breccia
	STATION 29			WILLIAMS ROCK	DRILL						
	Basalt chip	10g	A		10% Pg				F		
	STATION 33			DREDGE 5							
	Chalk	7k									Semi-indurated
	STATION 35			DREDGE 6							
	Lutite	1k									Calc ooze
	Lithified chalk	2.4									

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNR 42 STATION 51 DREDGE 8 DESCRIBED BY FARMER-BRODA DATE 3/29/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
	Chalk	61 kg								Burrowed lithified lumps of chalk with traces of Mn in crevasses	
16	Clinker ash	50 g									
7,13	Basalt cobbles	.4	A		25% Pg	2-3%	tr	.2-.3	L-M		
3,4,5,9,11	Basalt cobbles	1.6	A		tr Pg	3-7%	tr	"	"		Coral holdfasts
2,6,8,10, 12,14	Basalt cobbles	1.8	A-F			tr		"	"		
1	Basalt cobbles	.7	A		(fine) 3%Pg, 1% Ol,	tr		"	L		Worm tubes

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNR 42 STATION 68/72 DREDGE _____ DESCRIBED BY FARMER/BRODA DATE 3/29/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STATION 68		kg						mm			
1	Basalt	13	A		1% Pg			2	L-M		
2	Basalt	2	A		1% Pg	tr		1	"		Burrowed lithified marl
3,5	Jointed basalt	2	A		1% Pg	5-7%		1	"	Palagonite	
4,8,9	Basalt	1	A			0-3%		.2	M		Lithified marl
6	Basalt	250g	A		2% Pg,tr Ol	7-8%	tr	.5-1	M		
10,11	Indurated chalk	.5						.2			Lithified and Heavily burrowed
12	Coral	50g						"			
STATION 72				WILLIAMS ROCK DRILL #2							
	Glassy basalt chips	5g	A						F		
	Lutite	25g								calc ooze	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 77 DREDGE 11 DESCRIBED BY FARMER/BRODA DATE 3/30/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
111,125,132	Palagonite breccia	kg 10	C	Aphanitic & variolitic basalt subangular frags				tr mm	LM	Palagonite/slightly calc cement	
203	Palagonite rind	50g	C		50% Pg (medium)			.1	M		
58,59,69, 115,126,167	Basalt	5	A			1-4%	tr	.2	L		
56	Basalt	.5	A		tr Pg	1-4%		.2	L	Thick palagonite	- Variolitic
150	Basalt	5.8	A			tr		.4	M		Incipient crystallization
15,18,122, 137,141,176	Basalt	13	A		tr Pg	1%		.3	F		
175	Basalt	2.7	A		tr Pg, px,ol	1%		.5-1	L		Blocky jointed
42,65,68,70 127,130,135	Basalt	14	A		tr Pg	1%		.2	L	Some with minor palagonite	
145,156,177 48,64	Basalt	1.0	A		tr Pg	1%	1%	.2	L	Minor palagonite crust	
54	Basalt	.6	A		tr Pg	1%	1%	.3	L		
16,70,169	Basalt	3.0	A		tr Pg, tr Ol	1%		.5-1	L	#16 very weathered surface slightly variolitic	
170	Basalt	.3	A		tr Pg?	1%	.5%	tr	LM		Variolitic, very heavily weathered rind
37,39,47, 157,172	Basalt	3.5	A		tr Pg	3-7%	tr	.1	L	#39 has thicker Mn	
61	Basalt	.3	A		5% Ol, 5% Pg	25%	1-2%	<.1	L		
153	Basalt	1.4	A			1%		.2-4	L		Jointed
44	Basalt	1.4	A		tr Pg	1%	.5%	.2-1.5	L	Minor palagonite breccia	
154	Basalt	1	A			1%		.1	LM	Variolitic	
132	Basalt	.3	A		tr Pg	3%	tr	<.1	L	Leftover palagonite	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 77 DREDGE 11 DESCRIBED BY FARMER/BRODA DATE 3/30/78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
50,166	Basalt	.5	A		1% Ol	1%	tr	<1	L	Leftover palagonite	
124	Basalt	.6	A		tr Pg	tr		.2	L		
17a	Basalt	1.6	A		tr Pg			1	L		Worm tubes
16a,b	Basalt	1	A			2%	tr	.2	L		
7	Basalt	.7	A					.2	M		
53	Basalt	.1	A			tr		.1	L-VH	Considerable palagonite	Variolitic
135,142	Basalt	5	A			tr		.1	L		
178	Basalt	3.2	A			tr		.2	L		
38	Basalt	.1	A		tr Ol	5%	tr	.2	L-VH	Heavily weathered palagonite rind	Variolitic
45,52,125	Basalt	.6	A			1-2%		.2	M	Minor palagonite rind	
57	Basalt	.5	A		tr Pg	2	tr	.1-5	MH	Mn breccia on surface	
171	Basalt	.1	A		tr Ol	1%	tr	.2	M		
51	Basalt	.4	A			8%	1%	1-2	L		
147	Basalt	5.2	F					.2	L-M		
40	Basalt	.5	F		tr Ol	tr		.2	L		
19	Basalt	.2	A			1%		.5-1	LM		
30	"	.7	A			2-3%	tr	.2	LH	Palagonite & minor glass rind	Highly variolitic
28	"	.6				tr			F	Thick palagonite breccia	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 77 DREDGE _____ DESCRIBED BY BRODA/FARMER DATE 3/30/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
20	Basalt	.1	A			1%			LH		Variolitic
32	Basalt	.3	A		tr ?			.2	H		Virtually all large weathered varioles
29	Basalt	.3	A		tr Pg Ol	6%			F	Minor palagonite	
35A	Olivine basalt	1	A					tr	M		
23	" "	.1	F						MH		
63	Basalt	.2	A		Pg? Ol?	1%	.5%	.1	L		Rusty olivines?
62,46	Basalt	.6	F					.2	M	Indurated $CaCO_3$ breccia	" "
128	"	1	F	Rusty Ol matrix				.1	H		Granular texture
8	"	.3	F			10%	2%	.4	M		
151	"	2.7	A-F			tr		1-2	M		Worm tubes
5,10,26,139, 140	Basalt	4	F-M	Pg needles Ol matrix weathered		tr		tr	MH		
24	Basalt	.4	A-F			4%	2%	.1	H		Highly variolitic
12	Basalt	23.6	A-F	Pg needles		tr	* 5%	.2-2	M	*Numerous rusty brown spots - here called amygdules-highly variolitic & weathered	
2	"	5.2	A					.2	H		
116,123,43, 67,133	Basalt ? dk greenstone	1.3	A					.1-.5	H	Very altered basalt ?	
168,83	" "	1.8	A					.2-.5	H	Similar to above, but with variolitic character	
	Chalk	12.5		Lithified lumps of fine-frained calcareous ooze, moderate to extensive burrowing and varied Mn encrustation.							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 77 DREDGE 11 DESCRIBED BY BRODA/FARMER DATE 3/30/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	Chalk	27K		Pretty much the same as above, slabbed, lightly weathered							
		12K		Similar to heavily weathered, granular basalts above							
		15K		Unslabbed, 30% with minor amounts of palagonite							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 86 DREDGE 12 DESCRIBED BY BRODA/FARMER DATE 3/31/78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
2	Pillow basalt	23	A		2-4% Pg	3-5%		.1	VF	Extensive palagonite and glass rind	
3	" "	23	A		"	"		"	"	" "	
4	" "	19	A		5% Pg	5-7%		"	"	" "	
7	Basalt lava tube	7.5	A		10% Pg in center tr Ol	3-5%		.2	VF	" "	Tube frags with pheno zoned toward central cavity
52	" "	4.	A		"	"		"	"	" "	Vuggy stalagtite texture in chamber
8	Pillow basalt	7.	A		2-4% Pg	"			"	" "	block with central cavity
9	" "	7.	A		"	"			"	" "	
10	" "	3.5	A		"	"			"	" "	Indication of central cavity
11	" "	2.0	A		1-3% Pg	"			"	" "	Blocky
12	" "	1.0	A		"	6%			"	" "	Nice cap
13	" "	3.	A		2-4% Pg	"		tr	"	" "	
14	" "	3.	A		"	"		"	"	" "	
15	" "	5.	A		"	"		"	"	" "	
16	" "	3.	A		1-3% Pg	"		"	"	" "	
17	" "	6.	A		tr Ol, 5-6% Pg	1-2%		.2	F	" "	
18	" "	2.0	A		1% Pg	3%			VF	" "	
19	" "	2.0	A		2-4% Pg	3%			VF	" "	
20	" "	1.5	A		"	1-2%			"	" "	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION see below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE 3/31/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	STATION 86 (continued)							mm			
21	Pillow basalt	kg 3.	A		2-4% Pg	3%			VF		
22	" "	2.5	A		"	"			VF		
23	" "	1.4	A		"	"			VF		
24	" "	16.	A		3-5% Pg, tr Ol	* 2-7%			VF	*near center	Nice budded form and evidence of central cavity
53	" "	7.	A		2-4% Pg	3%			VF		
76	" "	1.	A		1-3% Pg	2-3%			VF		
77	" "	1.	A		"	"			VF		
81	" "	3.	A		"	"			VF		
150	Basalt lava tube	.7	A		tr Ol 7-10% Pg	1-3%		tr	VF	Palagnite & glass rind	Vesicles concentrated in center
NUMBERED SMALL	BASALT FRAGMENTS	2.1	A	VERY SIMILAR	TO ABOVE						
	STATION 88			WILLIAMS ROCK	DRILL						
1,2,3,4	Basalt cores	15g	A		3-5% Pg	4%			VF		
	STATION 102										
Unnumbered	Coral	5.0		Mn encrusted				.3-.5mm			

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION see below DREDGE _____ DESCRIBED BY BRODA/FARMER DATE 22 May 78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
	STATION 108										
1	Basalt	5	A			tr-1%		1-3	LM	Thick palagonite rind	
2	Basalt	6	A			1%		1-2.5	M	Palagonite rind w/some fresh glass	Coral holdfasts
3	"	.3	A			1%		.1	L	"	
4	"	.7	A		tr Pg	2%		1	LM	Glass replaced by palagonite	
5	"	.5	A			1%		1-3	M	Trace of palagonite rind	
6	Limestone	.1		Indurated Mn-encrusted calc	ooze						
Unnumbered	Basalt	.9	A		tr Pg	tr-1%		1-2	M	Small amounts of palagonite	
	STATION 110										
1	Basalt	.9			15-20% medium sized Pg+ Ol	4%		2-4	L		
2	Limestone	.4		Indurated lithified & burrowed calc	ooze (chalk)			1			
3	"	1.0		" "	" "			1			
	STATION 112										
1	Clinker coal	.3									
	STATION 117										
1	Basalt	1.	A		25% mostly Pg 5% Ol, 1% Px	2-3%		1	L		
	Basalt	.2	A		30-35% mostly Pg w/small amts Ol & Px	5%		<1	L		
	Coral	.1						1			

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 121 DREDGE _____ DESCRIBED BY BRODA/FARMER DATE 5/23/78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
1	Basalt	24	A			.5-1%		1-3	L	$CaCO_3$ in veins	Cobbles cemented to mother rock
2	"	6	A		1% Pg	8%	tr	.1-1	M		Scattered very large vesicles
3	"	14	A					.1-3	L	Excellent laminations of limestone overlying palagonite	Some fresh glass still preserved (variolitic texture in places); large wedge of a pillow
5	Basalt	6	A		tr Pg	5-6%	3%	.1	M		
6	"	4	A		"	10%	5%	1	M		Nearly all vesicles are large & elongated
24	Basalt	1	A		"	tr-1		.1-1	M		
14	"	1	A		tr Pg, Ol	"		"	M		
30	"	.2	A		"	"		"	M		Coral holdfast
27	"	.25	A		"	"		"	M		
34	"	.5	A		tr Pg, Ol, Px	"	tr	"	M		
33	"	2.5	A		tr Pg	"		"	M		
12	"	1	A			"		"	M		
20	"	.1	A		tr Pg	"		"	M		
9	Basalt	.2	A			4%	tr	1	H		
19	"	.2	A			"	"	1	H		
36	"	4	A			10-12	4%	.5	H		Particulate accumulation in vesicles which are large.

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 121 DREDGE _____ DESCRIBED BY BRODA/FARMER DATE 5/23/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
40,44	Basalt	kg .2	A		tr	7-8%	2%	mm .2	H		
7	"	7	A			tr		.1-2	L	Variolitic text.	Coral holdfast
4	"	5	A		tr Ol, Pg, Px	*4%	tr	.2-.5	L	Small zone of palagonite	*rim only
37	"	.3	A		2% Pg, tr Ol	5%		.1	L		Glassy
11,17,38	Glassy basalt	.5	A			1-2%		.1	L		Coral attached
10,21,29, 31,32,35	Basalt	1.5	A		tr Pg	30-50		.2-.5	M		Vesicles quite regular in size
15	Basalt	.5	A		tr Pg	30%		"	L		
13	"	1.6	A		"	"	tr	1	L		Variable sized vesicles
26	"	1.0	A		"	*45%	"	.2-.5	LM		*but rim only
18	"	1.4	A			10%		.5-1	M		
Unnumbered	small basalt	1.0	A		tr-3% Pg.	5-8%		"	LM		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 122 DREDGE _____ DESCRIBED BY FARMER DATE 5/23/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
1	Basalt	kg .2	A		1% Pg	1%		.2-.5	M	Thick shattered bisects rock	palagonite vein
81	Basalt	1.8	A			1%	tr	.5-1	M-H		Small amount indurated chalk
79	"	1.0	A		2% Ol, micro	1%		"	"		Olivine well weathered
78	"	.7	A		3% very small mostly Ol, some Pg	"		"	"	Minor, very weathered palagonite	"
71,72,80	"	.9	A		Ol microphenos weathered	tr		.3-.5	"	#80 variolitic	"
5	"	.1	A		tr Pg, 5% Ol(med)	5-7%		.1			"
73	Basalt	.4	A			"		.2	M-H		
91	"	.2	A			"	3%	.5-1			Large vesicles
3	Greenstone	.2	A				tr?	"	M		
6	"	.1	A				1%	.2-.5	M		large 1st chunk over Mn - varioles?
7	Glassy basalt	.1	A			1%		.2	L	Very weathered palagonite rind	Lithified chalk on surface - variolitic
75	Basalt	.2	A					"	M		Lithified chalk on surface
	Olivine basalts	.8	A		2-4% Ol, very small	1-2%		.2	MH		Very similar to weathered Olivine basalts above
	Basalts	1.9								Unslabbed, similar shape and weathering to rest of dredge	
2,4	Basalt	.3	F	Pg laths (#2)				.1	M	Rusty	
74	Limestone	.1						.1			
		37	A	Semi-indurated, burrowed chalk with minor (.1 mm) Mn coating (where present)							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 129 DREDGE _____ DESCRIBED BY FARMER/BRODA DATE 5/24/78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
58 & 59	Coral	.7		Branching coral with thin Mn skin							
56 & 57	Marl	2.3		Semi-indurated, burrowed calc sediment with thin Mn over small areas (where not rubbed off)							
4,5,30,33	Limestone	1.2		Up to .3 mm Mn in protected spots							
6	"	.8		Hard, but fractured, irregular shaped limestone virtually encased by breccia of shattered Mn(?), high quality, dense Mn							
42	Limestone basalt breccia	.8		Primarily limestone, one large piece of clinker coal also!!							
17,19, 31, 40,46	Limestone basalt conglomerate	4.6		Rounded cobbles of basalt cemented with considerable amount of limestone. Numerous corals on rim, Mn up to 1 mm thick in places, UNSLABBED							
39	Basalt-Mn breccia	5.7		No $CaCO_3$ except coral holdfasts, basalts are very weahtered Mn is impressive, thick and dense							
49	Basalt, diabase limestone breccia	.3				tr		mm 1-2	H		
7	Glassy basalt	.6	A							Spherical basalt with thick Palagonite rind	
10	Basalt	2.7	A		weathered micro's		tr	.1	L-F		
9	"	1.4	A		Rare Pg, Ol micro	1%		.1	L	Glass & palagonite rind	
18	"	5.1	A		Rare Ol, Pg "			.1	L		Concentric weathering pattern
14	"	3.9	A			tr		.1	L		
16	"	1.7	A					.1	L-F	Palagonite & glass rind	Pillow keystone
3, 12, 13	"	15	A		Weathered microphenos			5	L-M	(#12) has great fracture controlled weathering; elegant Mn rind.	
1	"	8.5	A		"			tr	L-M		
15	"	5.2	F		1% Pg	tr	tr	1-2	M		
22	Glassy basalt	.1	A			1%		1	H-M		Variolitic

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 129 DREDGE _____ DESCRIBED BY FARMER/BRODA DATE 5/24/78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
43	Basalt	.1	A					.2	H	Cut by alteration veins	
55	"	.3	F	Pg laths	Pg & microphenos NICE!	20%	1%	.3 -.5	M	Calcite crystals in many vesicles.	Calc sediment & coral
47	"	.7	A			1%	tr	1-2	L-M		
29	"	.4	A		Microphenos	1%		"	"		
26,27,36, 52, 54	Glassy basalt	1.6	A		#26,52 have tr Pg & Ol microphenos	1%	tr	tr	L	Glass & palagonite rind	Variolitic
45	Basalt	1.8	F			tr		.3	M		Coral holdfast & lith. calc
23	"	.9	F	Pg & Ol				1-2	M		Thick coral on surface
41	"	.9	A				S	1	M	Cut by alteration veins	
34,53	"	.7	A					tr	H		
2	Glassy basalt	9.8	A			1% near	tr rim	.1	L	Minor, palagonite on thick glass	Minor rind. variolitic
28,50	Basalt	2	A		Heavily weahtered microphenos			.2	H		
44,48	"	.6	A					.2	M-H	#44 has 2 mm Mn rind and curious weathering rim	
42	Breccia	.8	C	Calc cement and weathered basalt frags				.1	H		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 130 DREDGE _____ DESCRIBED BY BRODA/FARMER DATE 5/30/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	Limestone	kg 24.		Burrowed lithified chalk & limestone				mm .1-1		Numbered and samples	unnumbered
2	basalt	21.	F		2% Pg weathered micros	3%		.5	LM		Limestone breccia covers 30%
2A+B	"	.9	A		1% Pg	tr		.1	L		Different rock from #2 above
1	Breccia	.3	A					.2	MH	Generally nearly weathered basalt & glass frags in limestone matrix	
8	Glassy basalt	.2	A		7% Pg, tr Ol	7	S	.1	L	Well developed on surface	palagonite
7	" "	.1	A		7% Pg	3		.1	M	Palagonite rind covers exp. sur.	Limestone over over palag.
9	Basalt	.7	A-F		3% Pg weathered micros	tr		.1	M		Limestone on 30% of surface
10	Basalt	.3	A		1% Pg, 1% Ol	1%		.1	M		
11	Basalt	.5	A		1% Pg	1%		"	M		Limestone on 30% of surface
13	Basalt	.3	A		tr Pg	1%	S	"	M		
12	Basalt	1.5	A		3% Pg, 4% Ol	2%	S	"	LM		
14	Glassy basalt	.2	A		3% Pg	tr			MH	Limestone over palagonite rind	
17	Basalt	.2	A		1% Pg			tr	M	50% covered by limestone-basalt breccia	
18	"	.8	A		8% Pg, tr Ol	7%	S	tr	LM	Palagonite on	20%
19	"	.2	A		Tr Pg	2%	S	.1	H		Limestone over 30%
21	"	.1	A		1% Pg, tr Ol	Tr		"	M		Lithified chalk on 20%
28	"	.1	A		8% Pg, tr Ol	5%		.2	LM		
30	"	2.0	F		weathered microphenos	tr	S	.1	M		Limestone - basalt breccia over 25%

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 131 DREDGE _____ DESCRIBED BY FARMER DATE 5/23/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	Coral	kg 2		Thick stemmed branching coral				mm		.1mm Mn	
12	Basalt breccia	1.0	A			1%		tr	M	Extensive palagonite rind	Angular gravel fragments in palagonite cement (non-calc)
24	" "	.3	A	Varioles in one portion		tr		.1	M	80% of rock is weathered palagonite	" " "
7,19	" "	.2	A			1%			M	50% palagonite	" " "
39	" "	.1	A	Unslabbed but similar to above							
48	" "	.2	A			tr		.1	M		Chalk cement no palagonite
28	Basalt	3	A			1%		.1-1	L		
50	"	1.4	A			2%		tr	L	Palagonite covers entire surface	Coral holdfasts
30	"	.4	A			1%		.2	L		
37	"	.45	A			2%		.5	L	Peculiar rind on 2 sides-seems to be very weathered basalt but has very sharp contact with fresher rock	
47	Greenstone	.1	A					tr	L		
46	Greenstone	.1	A					tr	L		
21,22,35,40 42,45	"	.8	A					tr	LM		
41,44	Basalt	.3	A			3%		tr	L	Palagonite over most of rim	
18,18,34	Basalt	.3	A			3%		.1	M	"	Varioles
33	"	.3	A			tr		2-3	M		Minor lithified chalk
A3	"	.3	A			2%		.5	LM		
11	"	2	A			tr		.2-.4	M		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 131 DREDGE _____ DESCRIBED BY FARMER DATE 5/23/81

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
31	Basalt	.1	A				tr	.2	M-H		
43	"	.2	VF					.1	LM		
25	"	.2	A			2%		.1	LM		
11	"	.7	A		tr Pg Ol	2%	1%	.2-.4	M		Coral holdfasts and some lithified calc ooze
9	"	.7	F					tr	M		Minor lithified calc ooze
6	Greenstone	.3	A					tr	MH		Varioles
10	Basalt breccia	.3	A			tr		.2	H		Coral holdfast
1	Greenstone	3.0	A	Calcite veins				.1	M		
3	"	.1	A					tr	M		
A2	"	.2	A					.2	M		
A1, 8, 16,49	"	.7	A					tr	L	#8 has calcite crystals on surface	
4, 5, 14	"	.6	A						L	#4 has calcite crystals on surface	
13	"	.1	A					tr	H		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNR 42 STATION 137 DREDGE _____ DESCRIBED BY FARMER DATE 5/23/78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
137-1	Basalt	6	A					.2	H	large pieces of coral;	odd shape - as if silly putty consistency
2	Basalt	1.6	A		7% Pg	1%		.5-2	M		
4	Limestone	.2	A					tr			burrowed exterior + Mn veins
3	Conglomerate	1.0	A		Basalt-Palagonite	tr		2	MH	60% of rock = Palagonite	
5	Limestone	.7	A					.2			
	Branching coral	3								Completely covered by skin of Mn	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 145 DREDGE _____ DESCRIBED BY FARMER DATE 5/25/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
2	Basalt	1.5	A		Pg,ol microphen	1%		.1-.5	M		
3	Basalt	1.0	A		Pg 2%	1%	S	.1	M		
4	Basalt	.7	A		7% Pg, 7% Ol	2%			L	Limestone basalt breccia encases rock	
5	Basalt	.7	A		5% Pg, tr Ol	3%		.1	M		
6	"	.1	A			1%	S	tr	M		Filled vesicles
7	"	.7	A-F		Rare Pg			.5-1	M		
8	"	3.3	A		Ol, 2% Pg Rare	tr		.5	L-M		
9	"	.1	A			3%		.1	H		
11	"	.1	A		10% Pg, px? 5% Ol	4%		.1	F		All phenocrysts intergrown
12	"	.5	A		7% Ol, 7% Pg	4%		.1	F		Minor limestone
13	"	.1	A		1% Pg	2%		.1	L		
14	"	.1	A		5% Pg, 5% Ol	2%		.1	M		
15	"	.2	A		2% Pg	2%		.1	L		
17	"	.2	A		Pg, sparse	1%		.1	L		
18	"	.3	A		2% Pg	2%		.3-.5	M		
19,23,26,28	Limestone basalt breccia	.9	A		#23 has glassy Pg basalt			tr	M-H		Vesicles in basalts
1	Basalt	.1	A		tr Ol, Pg	2%		.1	M		1 mm limestone
20	Basalt	.2	A		7% Pg, Ol 2%	2%		.1	M-H		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 145 DREDGE _____ DESCRIBED BY FARMER DATE 5/25/78

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
21,22	Basalt	.8	A		10% Pg, Ol,Px	4%	S	.2	L		Minor limestone
24,25,27	Basalt	.4	A		5% Pg, tr Ol	4%	S	tr	L-M		
29	Basalt	.1	A			1%		tr	H		
30	"	.2	A			4%		.1	L		
31	"	.1	A		2%Pg, 2% Ol	4%		.1	L		
32	"	.8	A		tr Pg	tr		.3	M		
33	"	.1	A		1% Pg, Ol			.1	M		
34-36	"	1.4	A		4-10% Pg, 3% Ol	2%		.1	L-M		#34 has thicker Mn
37	Diabase	1.8	F			tr	S	.5	M		
38	Basalt	1.0	A			7%	tr	.1	L-H		Coral holdfast
39	"	1.0	A			3%	C	.3-.5	M		
40	"	.3	A			1%		tr	L-H		Small amount of glass and palagonite
41	Diabase	1.0	A		2% Pg, 2% Ol	1%	S	.5	L-M		
42	Pillow basalt	30	A	Unsplit				2-3	L-M	Massive pillow palagonite surface	cross section
	Chalk	10		Semi-lithified	calc lumps, heavily	burrowed,		Mn	in low spots		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 146 DREDGE _____ DESCRIBED BY FARMER DATE 1/20/80

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
6	Pg Basalt	2.2	A		40% Pg, 3% Ol	1%	tr	2	M-H		Felsic
10	Greenstone breccia	15	A					tr	L		Quartz veins
12	Greenstone	.1	A					tr	L		Calcite & epidote veins
9	Greenstone breccia	10	A						L		Carbonate veins
66	Basalt	.4	A		5% Pg, Px? 4% Ol	5%		tr	L		
68	"	.4	A		15% Pg, 5% Ol	1%		tr	M-H		Felsic
69	"	.4	A		15% Pg, 5% Ol	12%		tr	L		
70	"	.6	A		5% Pg, 3% Ol	2%		tr	L		
73	Greenstone	1.1	A		?			L	L		Altered phenocrysts
74	Basalt	1.7	A		5% Pg, 3% Ol	4%	tr	L	L	Palagonite rim	
75	Greenstone	1.0	A					L	M	Spherulitic	
76	"	.2	A					L	M	"	
77	Basalt	.3	A		10% Pg, 5% Ol	10%		L	L		
80	Greenstone	.3	A		1 Pg phenocryst			L	L	Spherulitic	
82	Greenstone	.4	A					L	L		
83	Basalt	.1	A		5% Pg	10%	S	L	L		$CaCO_3$
84	Greenstone	.8	A					L	L	Calcitic veins	& spherulitic

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 146 DREDGE _____ DESCRIBED BY FARMER DATE 1/20/80

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
86	Basalt	kg .2	A		3% Ol 5% Pg, Px-tr	12%	tr	L	L		
87	Greenstone	.2	A		1% Pg			L	L	Spherulitic	
89	Greenstone breccia	.4	A			1%		L	L	Vesicles & vugs in breccia	
88	Basalt	.3	A		7% Pg, 4% Ol	15%	tr	L	L		
90	Greenstone	2.4	A		Tr Pg			L	L	Spherulitic	
91	" breccia	2.4	A				?	L	L	Numerous cavities filled with white (non-calc) material	
92	Greenstone	2.5	A					L	L	Spherulitic	
93	Basalt breccia	2.7	A		tr Pg	5%		L	M	Veiscles & pg in angular fragments of lightly weathered basalt, matrix is well weathered	
94	Greenstone	.1	A		tr Pg			L	L		
95	Basalt	2.3	A		Ol-3% Pg 5%, Px-tr	3%	tr	L	L		
96	Greenstone breccia	1.0	A					L	L		
99	Basalt	.5	A		2% Pg, 1% Ol	5%		L	L		
102	Basalt	1.7	A		10% Pg, 1% Ol	3%	S	LM	L	Minor palagonite	
103	"	.8	A		10% Pg, Tr Ol	3%		L	L	Palagonite	$CaCO_3$
104	"	1.1	A		5% Pg, 2% Ol	2%		L	L		
105	Basalt	1.0	A		3% Pg, tr Ol	7%	tr	L	L		
106	"	.7	A		3% Pg, tr Ol	3%	tr	L	L		
107	Palagonite breccia	.1							M		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 146 DREDGE _____ DESCRIBED BY FARMER DATE 1/20/80

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
108	Basalt	.7	A		10% Pg, Px-tr 2% Ol	5%		LM	L		
111	"	.7	A		3% Pg, 1% Ol	3%		L	L		
113	Basalt greenstone	1.0	A		3% Pg			L	MH		
114	Greenstone	1.0	A					L	L	Spherulitic	
115	Basalt	.2	A		2% Pg, 2% Ol	10%		L	L		
116	Greenstone							L	L	Quartz vein	
	Marl	28.5		Soft marl with abundant burrows and minor manganese							
98	Greenstone	1.0	A					L	L	Large veins	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION 156 DREDGE 31 DESCRIBED BY FARMER DATE May 23, 1978

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
	Coral	2.6			Well covered with thin skin of Mn.						
	Chalk	.7		Indurated	CALC OOZE, burrowed, with minor Mn in low spots						
21,23,24,	Chalk	.5		Indurated	CALC OOZE stuck inside half of bivalve shell						
25											
1	Basalt	.3	A					.1 mm	M		
2	Basalt	1.6	A			7%	C	.3-.8 mm	M-H		
3	Basalt	4.7	A			3%	C	.2	M-H		
4	Basalt	1.8	A			1%	S	.3	L-H		
5	Basalt	.2	A			1%	S	.2	H		
6	Basalt	.1	A			1%	C	.2	H		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION see below DREDGE see below DESCRIBED BY FARMER DATE 5/23/78

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 161	Dredge 33							mm			
17	Granite	.45	M	Qtz, feldspar amphibole				.2	L		erratic
	Manganese	7		Large & small pieces Mn pavement and heavily Mn encrusted indurated Calc sediment							
STA 162	Dredge 34										
19a	Trachyte?	.45	A	Buff colored, homogeneous, extrusive, erratic							
	Manganese	5		Large & small pieces Mn pavement and heavily Mn crusted indurated calc sediment							
	Coral	.1		Two pieces coral with Mn skin							
STA 166	Dredge 36										
	Manganese	5.2		Mn cobbles							
	Sediment	.1		Mon-calc clay with abundant forams							Stored in jar
	Sediment	.2		Non calc clay with few forams							
STA 168	Dredge 37										
	Manganese	1.2		Mn cobbles							

WHOI ROCK SAMPLE DESCRIPTION

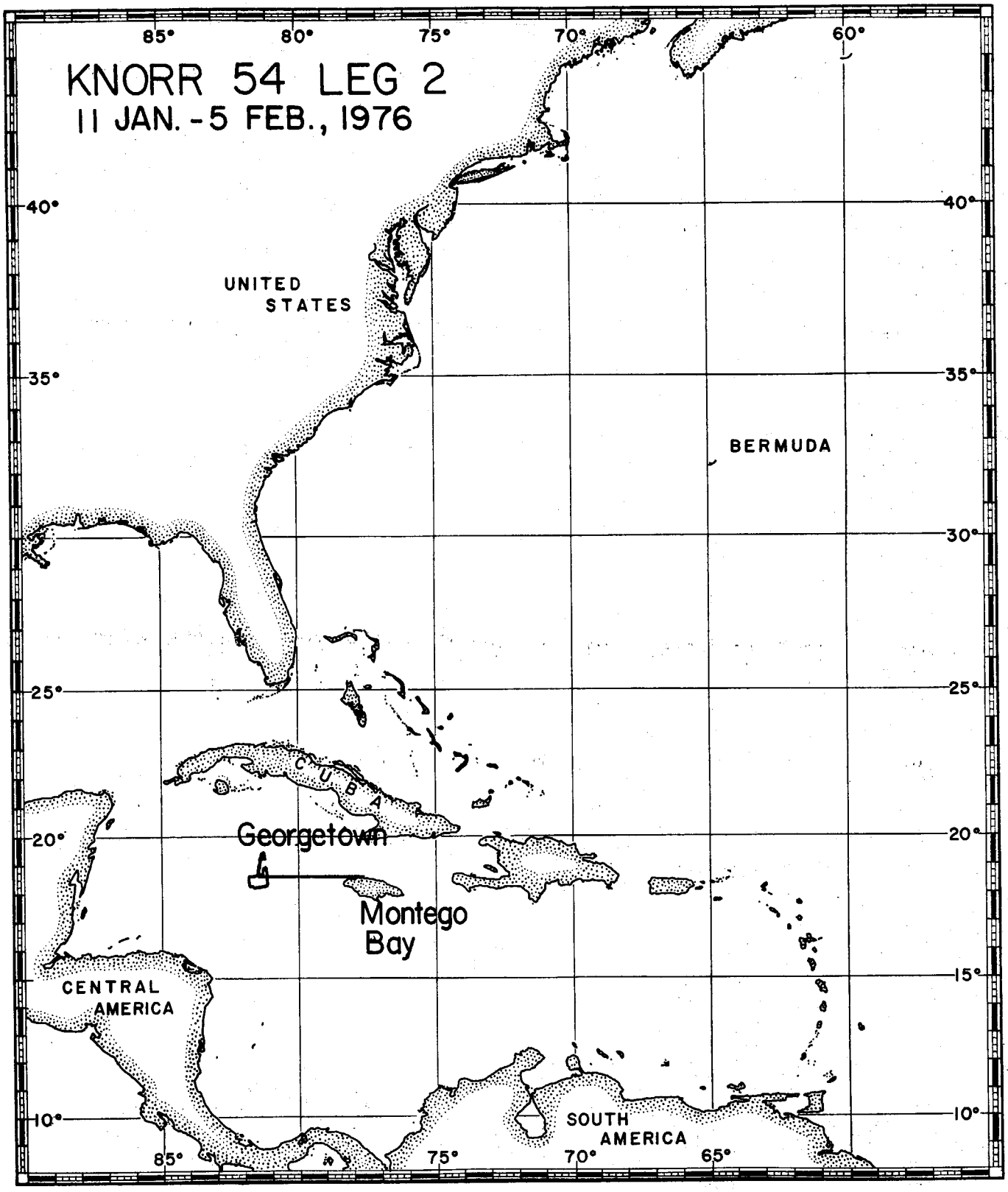
CRUISE KNORR 42 STATION see below DREDGE _____ DESCRIBED BY FARMER DATE 21 Jan 1980

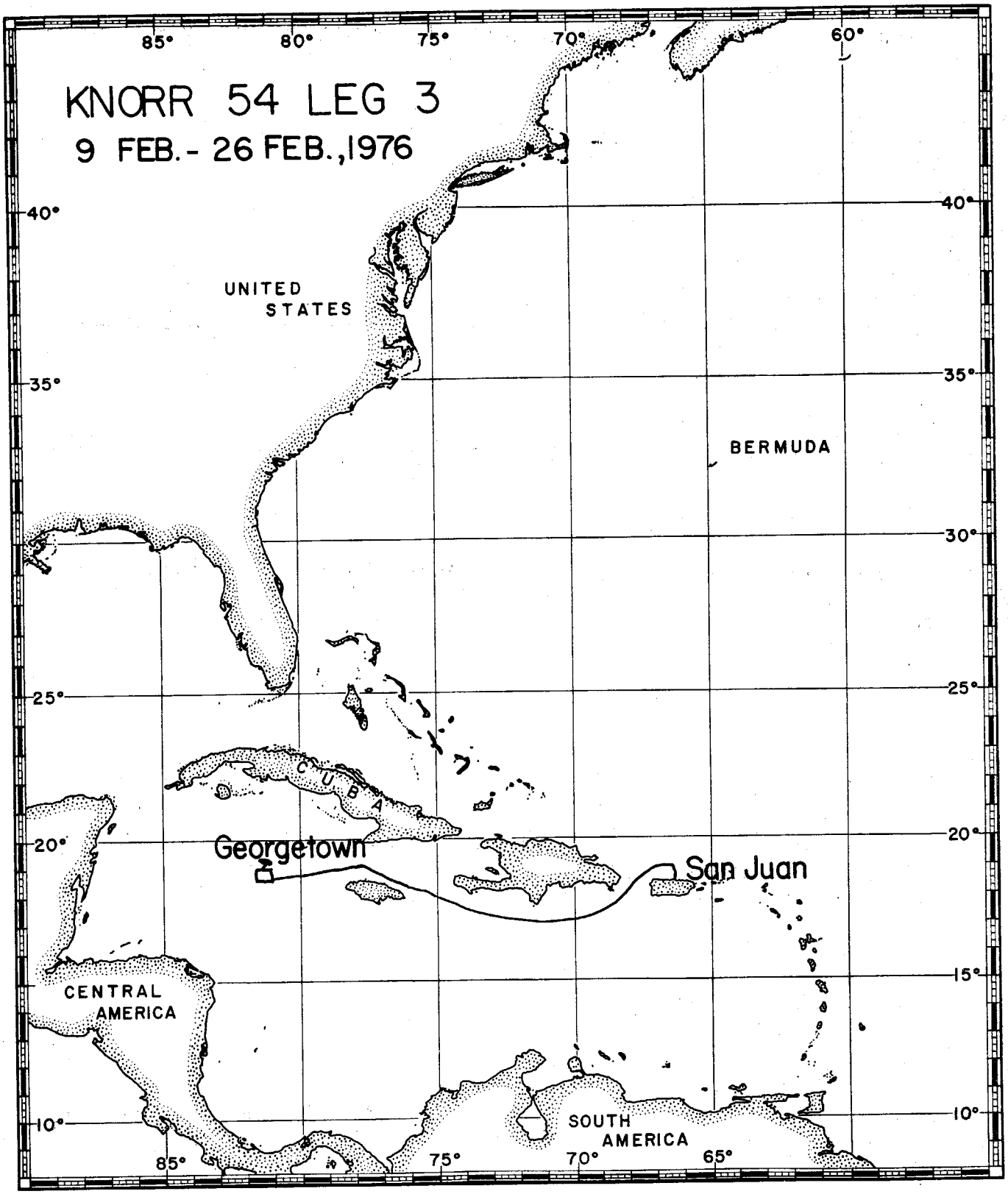
Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 171	Dredge 39	Kg									
	Manganese	138		Mn pavement, crusts and heavily Mn coated lithified sediment, a few glacial							
				erratics and perhaps also a few basalts under thick Mn crust							
	Coral	5		Mn-coated coral							
STA 174	Dredge 40										
	Manganese	.25			1 dense Mn nodule with numerous $CaCO_3$ inclusions						
STA 177	Dredge 41										
	Coral	.1		1 Piece Mn coated coral							
STA 178	Dredge 42										
1	Basalt	.1	A					mm .3	M		
2, 3	Erratics	2.0		Granitic							
	Mn	10.0		Delicate, very light Mn pavements with pronounced layering; orange brown colored.							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 42 STATION see below DREDGE _____ DESCRIBED BY FARMER DATE 21 Jan 80

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 180	Dredge 43										
	Erratics	21		Weathered erratics mixed granitic and mafic, some coarse sedimentary							
				conglomerates, very minor basaltic(?) conglomerate, several pieces calc. mud.							
STA 181	Dredge 44										
	Erratics	2		Granitic and mafic							
STA 182	Dredge 45										
	Mn nodule	.1									
	Erratic	.1		Meta sedimentary							


KNORR 54 LEG 2
11 JAN. - 5 FEB., 1976
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
UNITED STATES
BERMUDA
CUBA
Georgetown
Montego Bay
CENTRAL AMERICA
SOUTH AMERICA
65°


KNORR 54 LEG 3
9 FEB. - 26 FEB., 1976
85°
80°
75°
70°
60°
40°
35°
30°
25°
20°
15°
10°
UNITED STATES
BERMUDA
CUBA
Georgetown
San Juan
CENTRAL AMERICA
SOUTH AMERICA
65°

*************** STATION DATA RETRIEVAL *************** PAGE 1
*************** DATE: 08:52 SEP 21,'81 *************** **WHOI**

SHIP	CRUISE	LEG	STATION	SAMPLE NUMBER	DE-VICE	DATE YRMODA	LATITUDE	LONGITUDE	FIX TYPE	MARS-DEN SQUARE	CORE OR DREDGE NUMBER	DEPTH	CORE LENGTH OR END DEPTH	DREDGE OR SAMPLE WEIGHT	PHYSIO-GRAPHIC PROV.	ROCK OR SED. TYPE	VITA CODE	REMARKS
KNR	54	2	0002	0000	8	76 115	18 2.6'N	81 43.1'W	9	44.81	0000	4795.	4824.	089K	17	0000	0	
					COMMENTS					ANGUS CAMERA FRAME RECOVERED THIS BASALT								
KNR	54	2	0011	0000	8	76 118	18 .1'N	81 36.8'W	9	44.81	0003	2855.	2597.	042K	17	0000	0	
KNR	54	2	0012	0000	8	76 119	18 3.6'N	81 37.3'W	9	44.81	0004	3484.	3728.	016K	17	0000	0	
KNR	54	2	0013	0000	8	76 119	18 5.9'N	81 42.2'W	9	44.81	0005	4514.	4619.		17	0000	0	
KNR	54	2	0014	0000	8	76 119	18 3.4'N	81 41.9'W	9	44.81	0006	4324.	4369.	1.8K	17	0000	0	
KNR	54	2	0023	0000	8	76 123	18 4.4'N	81 47.8'W	9	44.81	0008	4892.	5103.	086K	17	0000	0	
KNR	54	2	0024	0000	8	76 123	18 7.0'N	81 46.8'W	9	44.81	0009	5011.	5066.	061K	17	0000	0	
KNR	54	2	0026	0000	8	76 124	18 4.4'N	81 48.8'W	9	44.81	0010	4001.	4459.	355K	17	0000	0	
KNR	54	2	0027	0000	8	76 124	18 1.2'N	81 48.6'W	9	44.81	0011	4413.	4369.	084K	17	0000	0	
KNR	54	2	0029	0000	8	76 125	18 3.6'N	81 46.8'W	9	44.81	0012	4956.	4683.	019K	17	0000	0	
KNR	54	2	0030	0000	8	76 125	18 5.4'N	81 44.9'W	9	44.81	0013	5411.	4892.	026K	17	0000	0	
KNR	54	2	0033	0000	8	76 126	18 5.8'N	81 42.6'W	9	44.81	0014	4874.	4911.	047K	17	0000	0	
KNR	54	2	0037	0000	8	76 128	18 5.7'N	81 46.6'W	9	44.81	0017	5157.	4403.	304K	17	0000	0	
KNR	54	2	0039	0000	8	76 129	18 6.9'N	81 45.4'W	9	44.81	0018	5502.	5157.	034K	17	0000	0	
KNR	54	2	0040	0000	8	76 129	18 1.6'N	81 46.3'W	9	44.81	0019	4828.	4892.	034K	17	0000	0	
KNR	54	2	0042	0000	8	76 130	17 58.0'N	81 47.6'W	9	44.71	0020	4630.	4459.	195K	17	0000	0	
KNR	54	2	0044	0000	8	76 130	18 1.6'N	81 44.9'W	9	44.81	0022	4610.	4486.	136K	17	0000	0	
KNR	54	2	0046	0000	8	76 131	17 59.8'N	81 45.5'W	9	44.71	0023	4623.	4397.	206K	17	0000	0	
KNR	54	2	0047	0000	8	76 131	18 6.0'N	81 47.6'W	9	44.81	0024	5075.	4499.	062K	17	0000	0	
KNR	54	2	0048	0000	8	76 131	18 6.9'N	81 46.6'W	9	44.81	0025	5212.	4568.	022K	17	0000	0	
KNR	54	2	0051	0000	8	76 2 2	18 7.3'N	81 43.0'W	9	44.81	0027	5684.	5575.	072K	17	0000	0	
KNR	54	2	0052	0000	8	76 2 2	18 7.3'N	81 46.0'W	9	44.81	0028	5393.	5474.	007K	17	0000	0	
KNR	54	2	0054	0000	8	76 2 3	17 59.1'N	81 34.4'W	9	44.71	0029	2047.	1956.	002K	17	0000	0	
KNR	54	2	0058	0000	8	76 2 3	18 7.6'N	81 43.8'W	9	44.81	0031	5329.	4965.	063K	17	0000	0	
KNR	54	2	0062	0000	8	76 2 4	18 25.0'N	81 40.8'W	1	44.81	0033	4665.	3913.	048K	17	0000	0	
KNR	54	2	0063	0000	8	76 2 5	18 35.7'N	81 41.3'W	9	44.81	0034	5123.	4628.	145K	17	0000	0	
KNR	54	3	0067	0000	8	76 210	18 38.7'N	81 12.6'W	9	44.81	0035	4118.	3438.	4.3K	17	0000	0	
KNR	54	3	0071	0000	8	76 211	18 45.9'N	81 35.0'W	9	44.81	0037	5292.	4628.	090K	17	0000	0	
KNR	54	3	0073	0000	8	76 212	18 56.6'N	81 31.3'W	9	44.81	0038	4701.	4568.	036K	17	0000	0	
KNR	54	3	0074	0000	8	76 212	18 49.0'N	81 32.8'W	9	44.81	0039	5657.	3529.	062K	17	0000	0	
KNR	54	3	0090	0000	8	76 216	18 37.0'N	81 44.0'W	1	44.81	0090	4755.	5283.	072K	17	0000	0	
					COMMENTS					ANGUS CAMERA FRAME RECOVERED THIS BASALT								
KNR	54	3	0091	0000	8	76 217	18 35.1'N	82 8.1'W	9	44.82	0042	4683.	4985.	075K	17	0000	0	
KNR	54	3	0094	0000	8	76 218	18 35.2'N	81 46.2'W	1	44.81	0043	5084.	5178.	146K	17	0000	0	
KNR	54	3	0098	0000	8	76 219	18 25.9'N	81 41.2'W	9	44.81	0045	5084.	4373.	083K	17	0000	0	
KNR	54	3	0102	0000	8	76 220	18 44.8'N	81 48.5'W	9	44.81	0046	6142.	6097.	2.4K	17	0000	0	
KNR	54	3	0103	0000	8	76 220	18 37.6'N	81 44.8'W	9	44.81	0103	5176.	5100.	012K	17	0000	0	
					COMMENTS					ANGUS CAMERA FRAME RECOVERED THIS BASALT								

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION see below DREDGE _____ DESCRIBED BY BRODA & FARMER DATE 2/20/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
Station 2	Rocks recovered	on ca	mera	sled!							
2	Basalt	32	A		tr Pg	tr			F	slight palagonite	Glassy pillow fragment
3	Basalt	6.2	A		tr Pg	tr			F	"	Glassy pillow fragment
4&4a	Basalt	50.8	A		tr Pg	tr			F	"	Glassy pillow fragment
Station 11	Dredge 3										
7	Metagabbro	.3	C	1% iddingsite					L	Calcic/plag veins	
8	Pyroxenite	.3	M	4% iddingsite					M		
10	Metagabbro	.2	C	4% iddingsite					L	Plag/calcic veins	
12	Metagabbro	.2	C	4% iddingsite					M		
13	Metagabbro	.2	C	4% iddingsite					M	Strongly sheared calcic veins	
16,15,14	Metagabbro	.1	C	2% iddingsite					M	Well deformed plag	
5	Metagabbro	30	C	2% iddingsite					L	Plag/calcic veins	
4	Metagabbro	13	C	2% iddingsite					L		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION Station 12 DREDGE 4 DESCRIBED BY BRODA & FARMER DATE 2/20/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Metagabbro	14	C	2% iddingsite					L	Small calcic veins	Lightly altered
2	Metagabbro	.3	C	iddingsite?				.1 mm	L	Calcic veins	Moderately altered
3	Metagabbro	2.0	C					tr	L	Massive calcic vein	Moderately altered

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION see below DREDGE _____ DESCRIBED BY BRODA & FARMER DATE 2/21/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 13	Dredge 5										
1											
2											
3											
STA 14	Dredge 6										
1	Metagabbro	.1	M	Talc,chlorite					M	Moderately serpentinized; alt. rims around numerous Px	
2	Metagabbro	.1	M					tr	M	Calcic vein	
4	Metagabbro	.1	M					tr	M	Lightly serpentinized; minor calcic alteration	
5	Metagabbro	.1	C						L	Large white calcic crystals	
6	Metagabbro	.1	M	chlorite					L	Lightly serpentinized; small quartz crystals on exterior	
7	Metagabbro	.2	M						L		
8	Metagabbro	.8	M						L	Lightly serpentinized; numerous alt. rims of phen.	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION see below DREDGE _____ DESCRIBED BY FARMER & BRODA DATE 2/20/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 23	Dredge 8										
1	Glassy basalt	6.4	A		tr Pg	1%			F		Pillow fragments; contains abundant
2	Glassy basalt	5	A		tr Pg	1%			F		microlaths of Pg
5	Glassy basalt	3.4	A		tr Pg	1%			F		" " "
21	Glassy basalt	3.8	A		tr Pg	1%			F		" " "
10	Glassy basalt	2.3	A		tr Pg	1%			F		" " "
15	Glassy basalt	1.6	A		tr Pg	1%				tr Palagonite	" " "
12	Glassy basalt	2.3	A		tr Pg	1%					" " "
numbered small	Glassy basalt	61.3	A		tr Pg	1%				Very slight palagonite	In general abundant microlaths of Pg are
	It can be assumed that all the above fragments came from a small number of parent pillows.									occasionally found	present
STA 24	Dredge 9										
1	Basalt	.4	A			5%	5	mm .2	L	tr Palagonite	Interior chambers filled with consolidated baked(?
2	Basalt	.2	A			tr		tr	F		calc ooze.
3	Glassy basalt	2.0	A			tr		.2	F	Variolitic	"blue glass"
4	Glassy basalt	24	A		tr Pg	tr			F	Variolitic	
5	Glassy basalt	34	A		tr Pg	tr			F	Variolitic	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 26 DREDGE 10 DESCRIBED BY BRODA & FARMER DATE 2/1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
2	Basalt	5.7	A			1%		tr	L	Heavily variolitic in layers & veins	Remarkable preferential weathering of varioles
13,15,19,72	Basalt	13.4	A			1%			L	Variolitic but	no drama
22	Basalt	13.2	A			1%			L		
25	Glassy basalt	5.5	A			1%			L	Minor palagonitic	Lightly variolitic
9	Basalt	6.1	A			tr		tr	L		
16	Basalt	8.2	A			tr		tr	L		Lightly variolitic
73	Basalt	2.4	F			1%			L		
26	Basalt	32	A			tr			L		Lightly variolitic
23	Glassy basalt (slab)	.2	A			1%			F	Moderately palagonitized	
60	Glassy basalt slab	.1	A			1%			F		
90	Glassy basalt	.7	A						F	Fresh basalt enclosed in hyaloclastic veins	
48	Glassy basalt	.6	A			2%			F	Fresh basalt enclosed in hyaloclastic veins	
12,51,68,96	Basalt	3.1	A			2%			F-L	Fresh basalt enclosed in hyaloclastic veins	
79	Basalt breccia	.4	C						L		
3	Basalt	1.8	A			tr			L	Very highly variolitic	Curious vein of heavy red varioles

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION see below DREDGE _____ DESCRIBED BY FARMER & BORDA DATE 2/20/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
26-28	Glassy basalt	28	A			1%			L	Thick hyaloclastic rind	
numbered	Basalts	276	A		tr Pg	tr-2%			L	Mostly variolitic, some light palagonitization; many with glass	
Sta 27	Dredge 11										
1	Glassy basalt	21	A			1%			L	Moderately palagonitic	
2	Glassy basalt	30	A			1%			L	"	
3	Basalt	7.1	A			1%			L		
4	Basalt	8.6	A			2%			L		
5	Glassy basalt	13	A					tr	L	Lightly palagonitized	
	Hyaloclastite	.1	M						H		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 29 DREDGE 12 DESCRIBED BY FARMER & BRODA DATE 2/20/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
29-1	Glassy basalt	2.2	A	Numerous fine plag laths	tr Plag	3%			F		
10,20	Glassy basalt	8	A	"	"	3%			F	Lightly palagonitized	Pillow fragments
3	Glassy basalt	.4	A	"	"	1%			F		Section of lava tube with vesicles concentrated along center axis
9	Basalt	1.5	A		tr. plag	tr			F		
19	Glassy basalt	2.5	A		tr plag	tr			F		Fragments of dome structure
14	Glassy basalt	.9	A	Numerous fine plag laths	tr plag	tr			F		
numbered fragments	Glassy basalt	3.6	A		tr Plag	tr			F		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 30 DREDGE 13 DESCRIBED BY FARMER & BRODA DATE 2/21/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
13	Glassy basalt	.2	A		4% Plag (medium)	tr			L	Moderate palagonite	
30,37	Glassy basalt	.5	A		3% Plag	3%			L	"	
5,63,149	Glassy basalt	.4	A		3% Plag	tr			L	"	
92	Basalt	.4	A		1% Plag	3%			L		
120	Basalt	.4	A			2%			L		
90	Basalt	.8	A			2%			L		
150	Basalt	.4	A		tr Plag	2%			L		Variolitic
71	Basalt	.2	A			tr			L		
79	Basalt	.2	A			2%			L		Tr varioles
14,83,105	Basalt	.6	A			tr-2%			L		Highly variolitic
67	Diabase	.1	F						L	Lightly serpentinized	
42,70,81	Greenstone	.7	A	Black magnetites, spinels ?					M	Moderately chloritized	
117	Greenstone	.2	A						M	"	
41	Greenstone	.3	A						M	Moderately chloritized	
87	Greenstone	.2	A						M	"	
18	Greenstone	.1	A						M	"	
34	Greenstone	.2	A						M	Heavily chloritized	Large metagabbroic vein plastered on one side
23,29,75,85	Metagabbro	.4	M						L	Mildly chloritized	

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR %$ STATION 30 DREDGE _____ DESCRIBED BY FARMER & BRODA DATE 2/21/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
18,64,76,82	Metagabbro	.5	C						L		
27	Greenstone	.1	C						M	Moderately chloritized	Shot with coarse metagabbroic veins
numbered pieces	Greenstone	19		Principally basalts as described above (<15% = glassy basalts or greenstones) virtually all metagabbros, greenstones and glassy basalts are described individually.							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 33 DREDGE 14 DESCRIBED BY FARMER/BRODA DATE 2/21/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
44	Basalt	6.4	A		Tr Pg	2%			L	Light palagonite	Lightly variolitic
37	Glassy basalt	1.0	A		1% Pg	2%			F	Moderate palagonite	
33	Glassy basalt	2.2	A		1% Pg	2%			F	"	
45	Glassy basalt	1.9	A		1% Pg	2%			F	"	
25	Glassy basalt	.3	A			1%			F	Light palagonite	
18	Glassy basalt	1	A		3-4% coarse Pg tr Ol	3%			F		Central cavity
46	Basalt	1.1	A			tr			L		Highly variolitic
41	Basalt	.7	A			4%			L		Nebulous vesicle clusters
27	Basalt	1.0	A			tr			L		
48	Basalt	2.4	A			1%			L		
numbered	Basalts	29.5	A		≈ 1-3% Pg	1-4%			F-L		Slight variolitic texture to some; with
unnumbered											light palagonite. ~40% are glassy

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 37 DREDGE 17 DESCRIBED BY FARMER & BRODA DATE 2/1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
4,6,21,	Basalt	31.5	A			1%			F-L		
11	Glassy basalt	13	A			1%			F-L	Moderate palagonite	
46,12	Glassy basalt	15.6	A						F-L	"	Thick glass
99,1	Glassy basalt	11.5	A			tr			L	"	Lightly variolitic
104,300	Basalt	12	F			3%	S		L		
3	Basalt	5.7	F			tr			L		
95,96	Basalt	.7	F			tr			L-M		
19,20 &friend	Hyaloclastic breccia	.3								Palagonite abounds	
28,29	Coarse limestone	.2									
74	Basalt breccia	.9	A		tr				M-H		Gravel-cobble size weathered basalts, softer non-calc. cement.
2	Glassy basalt	.8	A			5%			L	Lt palagonite	Highly contorted
27,47,59	Glassy basalt	3.0	A			tr			L	Variolitic in layers + high palagonitization	
82	Basalt	.7	A			tr			L	Highly variolitic	
60	Basalt	.4	A						L		
34,113	Basalt	1.5	A			2%	S		L		
numbered & unnumbered	Basalt	203	A		tr Pg (if any)	1-3%			L	if glass present ≈ 20% commonly to palagonite	
	Calc. ooze	.1	A								Burrowed & semi-lithified

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 39 DREDGE 18 DESCRIBED BY FARMER & BRODA DATE 2/27/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1 (A,C,E)	Glassy basalt	3.6	A		tr Pg +	1%			F	Minor palagonite	3 pieces form dome structure with dripping underneath
2	Glassy basalt	7.0	A		1% Pg	1%			F	"	Roof top structure
21	Glassy basalt	2.0	A		1% Pg	1%			F	"	
3	Glassy basalt	3.7	A		1% Pg	1%			F	"	
16	Glassy basalt	1.6	A		1% Pg	1%			F	Moderate palagonite	
14	Glassy basalt	1.6	A		1% Pg	1%			F	"	
19	Glassy basalt	.4	A		1% Pg	tr			F	Slightly variolitic	Glassy lava toe
18,4	Glassy basalt	1.4	A		1% Pg	tr			F		
25	Glassy basalt	2.0	A		1% Pg	1%			F		Gas pocket within
numbered misc.	Glassy basalt	10.3	A		1% Pg	1%			F		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 40 DREDGE 19 DESCRIBED BY BRODA/FARMER DATE Feb 27 79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Glassy Basalt	8.2	A		1% Pg	1%			F	Slight palagonite	
2	Glassy basalt	13.5	A		1% Pg	1%			F	"	Pillow
3	Glassy basalt	10	A		1% Pg	1%			F	"	
5	Glassy basalt	3.9	A		2% Pg	5-7%			F		Numerous Pg laths
23	Basalt	2.0	A		1% Pg	5-7%			F		" " "
24,10,15, 21,19	Glassy basalt	2.4	A		2% Pg (laths)	tr			F	Moderate Palagonite	Domed fragments -drippings
14	Glassy lava tube	.3	A		2% Pg	tr			F		Nice central cavity runs longitudinally
30	Glassy basalt	4.6	A		2% Pg	1%			F	Slight palagnite	
numbered mist	Glassy basalt	2.4	A		1-2% Pg	1%			F		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 42 DREDGE 20 DESCRIBED BY BRODA & FARMER DATE 2/27/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
								mm			
4	Basalt	20	A		10% Pg laths	Tr		.3	L		
1,5	Basalt	56	A		10% Pg laths	5%		.3	L		
7,15,20	Basalt	18.6	A		10% Pg laths thinning toward center of pillow	tr		.1	L	Thick completely palagonitized	Plag.laths very abundant in palagonite
25	Basalt glass	.6	A		4% Plag laths	1%			L	Thick palagonite	
57	Basalt glass	.3	A		tr Plag.	1%			L	Hydroclastic attached to surface	Variolitic
34	Basalt	1.1	A		tr Plag	1%			L	Palagonite with minor glass in carbonate cement stuck to surface	
23	Basalt	2.5	A		10% Plag laths	1%		.2	L	Palagonite with abundant plag laths	Variolitic
39	Basalt	.5	A		10% plag laths	4%		.2	L	"	
14	Basalt	4.6 l	A		4% Plag laths	tr		.2	L	"	
26	Basalt	1.7	A			1%		.2	L	Vesicular palagonite	
21	Glassy basalt	1.4	A			1%		.5	F		
32	Basalt	1.2	A		10% Plag laths	tr		tr	L		Abundant plag laths in palagonite
9,56	Basalt	6.1	A		Tr Pg	5%		tr	L		
36	Basalt	1.0			3% Pg laths	tr			L		Gas pocket texture underneath

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 42 DREDGE 20 DESCRIBED BY _____ DATE _____

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
48,19	Basalt	2.6	A		tr Pg	4%		mm .2	L	tr Palagonite	
30	Basalt	1.7	A		tr Pg	tr		.5	L		
numbered & unnumbered	Basalt	79	A		tr - 10% Pg mostly in lath form	0-5%		.5	L		Palagonite is generally loaded with laths where present

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 44 DREDGE 22 DESCRIBED BY FARMER & BRODA DATE 2/27/79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Glassy basalt	12.5	A			tr			F	Slightly variolitic and slightly palagonitic	
2	Basalt	5.2	A			5%	S	mm .2	F		
14	Glassy basalt	25	A			3%			F	Slight palagonite	
13	Glassy basalt	4.4	A						F	Slightly variolitic & very slight palagonitic	Pillow fragment
11	Glassy basalt	9	A						F	"	
12	Glassy basalt	5.2	A						F	"	
6	Basalt	3.6	A			4%		tr	F		Has portions of large interior gas pockets with very smooth surfaces
10	Glassy basalt	16	A						F	Slightly variolitic	Pillow fragment
8	Glassy basalt	9	A						F	"	" "
19	Glassy basalt	1.1	A			1%			F	"	
50	Glassy basalt	.6	A						F	"	
47	Glassy basalt	1.0	A						F	"	
5	Glassy basalt	2.8	A		tr Plag	4%	S		F	"	
27,29	Glassy basalt	1.0	A						F	"	Nice glass
numbered pieces	Basalts	40	A		tr Plag (if any)	0-4			F	"	Most with glass

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 46 DREDGE 23 DESCRIBED BY BRODA & FARMER DATE Mar 6, 1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Glassy basalt	7.1	A			tr		tr	F	Light palagonite	Lightly variolitic
12	Glassy basalt	5.0	A			2%			F		
13	Glassy basalt	4.0	A		tr Plag	tr			F		
18,96	Glassy basalt	3.5	A			tr			F		
120	Glassy basalt	1.2	A		tr Plag	3%	tr		F		Pahoehoe texture
28,69	Glassy basalt	5.3	A		tr Plag	tr			F	light Palagonite	
85	Glassy basalt	1.8	A		tr Plag	1%			F		Slightly variolitic
17,98	Glassy basalt	2.5	A		tr Plag	4%			F		
99	Basalt	1.1	A		tr Plag	3%			L		
109	Basalt	.9	A		tr Plag	tr			L		
101	Glassy basalt	2.1	A		1% very small plag	3%	tr		F		
75	Glassy basalt	.3	A						F		Glassy, eggshaped
89	Glassy basalt	.7	A			1%			F		Lightly variolitic
10	Basalt	3.3	A		tr Plag	tr			L		Interior gas pocket with drippings
3	Basalt	5.7	A			tr			L		Unglassy but ropey surface on top, under has drippings from large gas pocket

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 46 DREDGE _____ DESCRIBED BY FARMER/BRODA DATE 6 Mar 1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
14	Glassy basalt	12.5	A		tr Plag				L	lightly palagonite	Lightly variolitic
2	Glassy basalt	13.	A		tr Plag				L		
numbered fragments	Basalts	136	A		absent to tr plag	tr-4			F-L		Mostly glassy

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 47 DREDGE 24 DESCRIBED BY BRODA & FARMER DATE Mar 7, 1979

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
23,33,39	Basalt-hyaloclastite breccia	1.0	C						L-M		
47,55,67	"	1.2	C						L-M		
66	Basalt	.1	A			5%			L		Vesicles are stretched by flowing
61	Basalt	.4	A		tiny plag laths	2%			L	Developing veins filled with calc ooze, interior has granular texture due to gas pocket	
31	Basalt breccia	.1	A						L	Calcite/qtz? veins	Glassy
42	Basalt	.1	A						L	Fresh interior but very soft exterior calcite/quartz? veins	
37	Glassy basalt	.1	A			tr			F-L	Lightly variolitic	
75	Glassy basalt	.1	A							Lightly variolitic, Slightly palatontized	
35	Glassy basalt	.9	A			tr			F		Crust of hyaloclastic breccia attached
9, 51	Basalt	2.0	A			1-3%			L		"
69, 76	Basalt	.9	A			tr			F		"
70	Glassy basalt	.4	A			tr			L	Moderate palagonite	"
53	Basalt	.1	A			5%	S		L		Large gas pocket

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 47 DREDGE _____ DESCRIBED BY FARMER/BRODA DATE 7 March 79

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
57	Basalt	.4	A			4%			L	curious extremely heavily weathered rind	Pahoehoe texture on surface
63,65	Glassy basalt	1.0	A			tr			L	Heavily palagontized	
1	Glassy basalt	28	A		none	tr				"	Abundant gabbro, lightly variolitic
numbered &unnumbered	Basalts	25	A		0-tr	tr-3%			L	Moderate palagonite common plus hyaloclastic sediment	
88	Basalt	.2	A			tr			L		Veined

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 48 DREDGE 25 DESCRIBED BY FARMER DATE 1/20/80

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Basalt	14	A		tr Pg	2%	C	Tr	F		
2	Basalt	2.5	A		2% Pg	1%		tr	F	Palagonite rim	Plag. mostly as very fine laths
3	Basalt	1.0	A		2% Pg	1%			F	" "	"
4	Basalt	1.0	A		2% Pg	1%	S	tr	F		"
5	Basalt	.3	A		2% Pg	tr			F		"
6	Basalt	1.0	A		2% Pg	1%		L	F		"
8	Basalt	.9	A		2% Pg	Tr		tr	F	Minor palagonite rim	"
Small numbered pieces 18	Basalt	2.5	A	Same as above							
	Calc Ooze	.4		partially consolidated calc. sediment							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 51 DREDGE 27 DESCRIBED BY FARMER DATE Jan 80

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Glassy basalt	4	A			tr			F		
2	Glassy Basalt	11	A			tr			F		
3	Glassy basalt	3	A			tr			F		
4	Glassy basalt	3	A			tr			F		
5	Glassy basalt	2	A			tr			F		
6	Glassy basalt	4	A			tr			F		
8	Glassy basalt	0.8	A			tr			F		
13	Glassy basalt	1.6	A			tr			F		
numbered samples glassy basalt		40		Remaining samples are generally small, very similar to above, relatively few pieces are without glass - many pieces with exquisite glassy rinds							
90	Basalt	.1	F						M	This sample is rest of dredge	quite anomalous w.r.t. - perhaps mislabelled?

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 52/54 DREDGE 28/29 DESCRIBED BY FARMER DATE Jan 1980

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 52 1A	Dredge 28 Basaltic glass	0.1	A			tr			VF		Very fresh "popping" glass
14	Basaltic glass	0.3	A			tr			VF		
56	Basaltic glass	0.3	A			tr			VF		
20	Basaltic glass	0.2	A			tr			VF		
31	Basaltic glass	0.3	A			tr			VF		
numbered samples	Basaltic glass	6.0	A	Numerous very small samples, many almost wholly glass, generally very fresh, exquisite glass, few pieces with minor palagonitization.							
STA 54	Dredge 29										
1	Metagabbro	0.3	C						L		
2	Metagabbro	0.3	C					L	L		few coral holdfasts
3	Metagabbro	0.3	C						L		
4	Greenstone	0.6	A					L	L		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 58 DREDGE 31 DESCRIBED BY FARMER DATE 1/24/80

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
62	Basalt	15	A		tr Plag			tr	F		
1	Glassy basalt	2	A		2% plag	tr			F		
11	Basalt	3	A			1%			F		
15	Basalt	1.5	A					tr	F		Variolitic
31	Basalt	2.0	A			tr			L		
2	Glassy basalt	1.8	A		tr Plag	tr			F	Partially palagonitized	
12	Basalt	1.4	A			3%			L		
19	Basalt	1.5	A		tr Plag, tr Ol	5%			L		
20	Basalt	1.0	A		tr Pl	tr		tr	L		
22	Basalt	1.0	A			5%			L		
25	Basalt	1.0	A		1% Pl				L		
10	Basalt lava tube	2.6	A		2% Pl	tr			F	50% palagonitized	Vesicles concentrated at center
35	Glassy basalt	.6	A						F	Mostly "	
52	Glassy basalt	1.0	A						F		Very glassy slab
48	Basalt	.1	F						L		Somewhat coarser grained than rest of basalts
Numbered	Basalts	25		As described above, generally small angular pieces relatively little glass							
	calc ooze	.7			Soft sediment						

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 62 DREDGE 33 DESCRIBED BY FARMER DATE 2/24/80

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
10	Basalt	22	A		1% Pl	tr			F	Mostly palagonitized	Minor glass
22	Basalt	.7	A		2% Pl	tr		tr	F		
1	Basalt	5	A			tr			L		
2A	Basalt	1.4	A		1% Pl	tr	?	L	L		Vesicles filled with a soft basaltic product
2B	Basalt	1.0	A		tr Pl	tr		L	L		
3	Basalt	4.5	A		2% Pl			L	L		
4	Basalt	2	A					tr	L		
6	Basalt	2.8	A			1%			L		
21	Basalt	0.9	A			tr		L	L-M		
30	Hyaloclastite	1.2	A	Angular fragments of basalt glass &		palagonite				in calcareous matrix	
31	Greenstone	.7	A-F						H	Several small pieces heavily altered, relatively soft, several pieces with grain size up to 1 mm	
8	Basalt	.7	A		1% Pl	4%	tr		L-M		
numbered	Basalts	4.0	A	Small basalt fragments as described		above					
24	Gabbro	.4	M	Px,Plag					F		Minor alteration or metamorphosis has started

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 63 DREDGE 34 DESCRIBED BY FARMER DATE 1/24/80

Sample #	Lithology	Wt.	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
2	Glassy basalt	4	A		tr Pl	tr			F		Pillow fragments
3	Glassy basalt	18	A		tr Pl	Tr			F		Pillow fragments, much glass
5	Basalt	11	A		tr Pl	tr			F		Pillow fragments
4	Glassy basalt	8	A		tr Pl	tr			F		Much glass
10	Glassy basalt	3.	A		tr Pl	tr			F		Pillow fragments
19	Glassy basalt	4	A		tr Pl	tr			F		Pillow fragments
40	Basalt	5.	A			tr			F		
41	Glassy basalt	7	A		tr Pl	tr			F		Pillow fragments
42	Glassy basalt	3.	A		tr Pl	tr			F		Pillow fragments
69	Glassy basalt	8.0	A		tr Pl	tr			F		Pillow fragments
54	Glassy basalt	2.7			tr Pl	tr			F		Pillow fragments
numbered	Basalts	68		Very similar to above, generally glassy, perhaps 30% without glass							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 67 DREDGE 35 DESCRIBED BY FARMER DATE 1/24/80

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
5	Basalt	.1	A			tr		tr	M	Glass has gone to palagonite	Variolitic
6	Basalt	.4			tr Plag			tr	M		
7	Gabbro	.4	M					tr	L		
3	Metagabbro	.2	M						M		
11	Metagabbro	.6	M					L	L		
14	Gabbro	.3	M					tr	L		
	Conglomerate	1.5	C	Basalt & gabbro fragments in non-calc. soft matrix							

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 71 DREDGE 37 DESCRIBED BY FARMER DATE 1/24/80

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
13,71,100	Red mudstone	1.7	A					tr	F	Calcite veins	Rocks have fault planes on one surface
36	Limestone	.4	A-F						F	Pale gray, highly calcareous	
14	Limestone	1.0	A					tr	F	Pale gray, highly calcareous with calcitic veins	
5	Fault gouge	6.0	C						M	Breccia consisting of various states of greenstone & metagabbro with well developed calcite crystals	
25	Brecciated greenstone	1.6	A						H	Heavily altered, soft, more massive than above pieces; calcite veins and crystals	
26	Fault gouge	.7	C						M-H	Breccia of greenstone fragments	
3	Brecciated greenstone	6.0	A					tr	M-H	Soft, relatively massive	
24	"	1.0	A						M	Abundant calcite veins	
1	Breccia	12.0	C	Greenstone + metagabbro					M	Large angular to subrounded fragments with varying degrees of weathering	
50	Breccia	2.0	C	Greenstone, gabbro, metagabbro & red mudstone					M-H	Large angular to subrounded fragments with varying degrees of weathering	
7	Metagabbro	7.3	F						M-H	Original crystals virtually destroyed	
2	Breccia	2.5	C	Greenstone, metagabbro & calcite veins					M-H		
53	Greenstone	.8	A		3% Plag				M	Partially chloritized but plag. phenocrysts still preserved - well developed calcite crystals	
29	Metagabbro	.8	F								

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 71 DREDGE 37 DESCRIBED BY FARMER DATE 1/24/80

Sample #	Lithology	Wt.	G. S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
15,17,38,39,	Marl	.7	A	Lithified highly calcareous sediment							
	Greenstone breccia	42K		Fault gauge highly altered, relatively soft						calcite crystals &	veins common

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 73 DREDGE _____ DESCRIBED BY BRODA/OTTER DATE 4/21/81

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn mm	We	Alteration	Remarks
1 A+B	Basalt	2.1	A		Plag 10% Ol tr (heavily weathered)	tr		tr	F		Hyaloclastic/carbonate cementation common
3	Basalt	1.6	A		tr Ol	tr		.5	H		1 cm palagonite rind
5	Basalt	.2	A			5%	S	tr	H		
7	Basalt breccia	.4	M/A								Heavily weathered basalt cobbles in carbonate cement.
9	Basalt	.2	M/A		Plag 3%			4	H		
10	Basalt	1.4	A		Plag 5% tr Ol	3%			M	Vesicles filled w/zeolite/calcite crystals	Highly irregular vesicles. Slight palagonite rind.
11	Hyaloclastic sediment	.2	M						H		Palagonite bonded w/ non-carbonate lutite
12	Basalt	.1	A			4%		2.5	H		
13	Basalt	.2	A		Ol tr Plag 1%, Px tr	tr			H		
15	Basalt	1.8	A		Plag 3 % Ol tr	7%					Crumbly palagonite rind w/curious thin shell-like laminae.
16	Basalt	.2	A		Ol tr (weathered)	3%		tr	M		
17	Basalt	5.0	A		6% Plag, tr Ol (weathered)	2%		tr	L		Heavy wreath of hyaloclastic sed. and palagonite.
40	Basalt	.6	A		Plag 3% tr Ol	tr		tr	L		
41	Basalt	1.8	A			4%		.1	L		Palagonite rind

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNR 54 STATION 74 DREDGE _____ DESCRIBED BY BRODA/OTTER DATE 4/21/81

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
		kg						mm			
7	Limestone	5.0	A								
17	"	.3	A					.5			
35	"	.9	A					.5			
49	"	1.6	A								
50	"	.1	A								
58	"	.2	A								
85	"	1.0	A					tr			
117	Peridotite	.1									
118	breccia Greenstone	.4		Mylontinized weathered serpentine around a gossan core after peridotite							
114	" "	.2									
108	" "	.2									
20	Gabbro	.4									Poss. secondary orthoclase
111	Gabbro	.2									
-6	Limestone	3.1									
-3	Gabbro	4.5									
-4	Limestone	20									

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNR 54 STATION 90 DREDGE _____ DESCRIBED BY BRODA/OTTER DATE 4/21/81

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Basalt	kg 8	A		Plag 15%	2%			F		
2	"	16	A		Plag 20%	tr		tr	F		Weathered glass rind
					NOTE: ROCKS WERE RECOVERED BY ANGUS CAMERA FRAME						

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNR 54 STATION 91 DREDGE _____ DESCRIBED BY BRODA/OTTER DATE 4/21/81

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Aphyric basalt	kg 18	A		tr of weathered plag	tr		1-15 mm	M		In numerous pieces
2	" "	.2	A			2.5%		.2	M-H		
3	" "	1	A						V-H	Thick crown of hyaloclastic	Palagonite breccia
4	" "	.3	A			2.5%		.4	M		
5	" "	4	A			tr			M		Weathered palagonite rind
7	Basalt	16	A					2.0	H		Entire slab is coated with hyaloclastic palagonite breccia

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNR 54 STATION 94 DREDGE _____ DESCRIBED BY BRODA/OTTER DATE 4/21/81

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Pg phyric basalt	kg 45	A		2% Plag, tr Ol	tr			F		lt. palagonitized glassy rind
2-L	Pg "	6	A		tr Ol 3%Plag laths	tr			F		Ropey pahoe-hoe glass on one side, lightly weathered glass on other
4-C	" "	4	A		2% Plag, tr Ol	tr			F		Lightly palagonitized glassy rind
10	" "	2.0	A		5% Plag	tr			F		Glassy lava tube segment
11	" "	.5	A		17% Plag, tr Ol	2%			F		Flow froth
21	" "	.5	A		15% Plag, tr Ol	"			F		Froth
37	" "	.4	A		12% Plag,tr Ol	2%			F		Froth
40	" "	2.6	A		5% Plag	tr			F		Lava tube, glassy
43	Plag basalt	2.0	A		3% Plag	tr			F		Slightly weathered glass
44	Basalt	5	A		<1% Plag	1%			F		Weathered glass
46	Basalt	4	A		2% Plag	1%					
45	Basalt	20	A			3%			F		Palagonitized glassy rind
47	Basalt	15	A		Plag 2-3%	1%			F		" "

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNR 54 STATION 98 DREDGE _____ DESCRIBED BY BRODA/OTTER DATE 4/21/81

Sample #	Lithology	Wt. kg	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
1	Basalt	21.4	A			tr		tr	F		Glassy rind - bulbous pillow -as fine a
											basalt as J. Broda has seen.
2	Basalt	14.6	A			tr		mm .1	F		Very fresh - lightly palagonite rind
3	" "	33.6	A			1%		tr	L		Grey-black basalt, No glass
5	"	7.4	A			1%		tr	F		" " "
6	"	5.8	A			tr		.2	F		

WHOI ROCK SAMPLE DESCRIPTION

CRUISE KNORR 54 STATION 102/103 DREDGE 46 DESCRIBED BY FARMER DATE 1/24/80

Sample #	Lithology	Wt.	G.S.	Mineralogy	Phenocrysts	Ve	Am	Mn	We	Alteration	Remarks
STA 102	Dredge 46										
1	Basalt	.1	A		1% Pl	tr			F		Minor glass
3	Basalt	.1	A		1% Pl	tr			F		
5	Basalt	.1	A		1% Pl	tr			F		Minor glass
7	Glassy basalt	.1	A		1% Pl	tr			F		
10	Basalt	.1	A		1% Pl	tr			F		Minor glass
11	Basalt	.1	A		1% Pl	tr			F		Minor glass
12	Basalt	.1	A		1% Pl	tr			F		Minor glass
13	Basalt	.2	A		1% Pl	tr			F		
16	Basalt	.1	A		1% Pl	tr			F		Minor glass
small unnumbered	Basalt	1K	A		1% Pl						
STA 103	Dredge Sample	recovered		on camera sled							
1	Glassy basalt	12	A			tr			F		good glass

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H. G. Farmer and J. E. Broda

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1. Rock
2. Dredge
3. Description

b. Identifiers/Open-Ended Terms

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